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# Orbiter Autoland Reliability Analysis

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## Abstract

The Orbiter is the only space reentry vehicle in which the crew is seated upright. This position presents some physiological effects requiring countermeasures to prevent a crewmember from becoming incapacitated. This also introduces a potential need for automated vehicle landing capability. Autoland as a primary procedure was identified as a requirement for landing following an Extended Duration Orbiter mission. This report documents the results of the reliability analysis performed on the hardware required to execute an automated landing. The reliability block diagram approach was used to evaluate the system reliability. The analysis considers the manual and automated landing modes currently available on the Orbiter vehicle (Autoland is presently a backup system only). Results of this study indicate a ~36% probability of successfully extending a nominal mission to 30 days. Enough variations were evaluated to verify that the reliability could be altered with mission planning and procedures. If the crew is modeled as being fully capable after 30 days, the probability of a successful manual landing is comparable to that of Autoland because much of the hardware is used for both manual and automated landing modes. The analysis indicates that the reliability for the manual mode is limited by the hardware and depends greatly on crew capability. Crew capability for a successful landing after 30 days has not yet been determined.



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## **Executive Summary**

This analysis specifically includes only the probability that the required landing hardware is functional for various specific periods. The Autoland RBDA addresses three main objectives:

1. Determine the probability of successfully performing an automated landing upon mission return (deorbit).
2. Determine the probability that the necessary hardware for Autoland will be available at end-of-mission when required to support an automated landing.
3. Compare the system reliability of manual landing versus Autoland.

A reliability block diagram model was constructed for this evaluation and analyzed for each of the 110 possible combinations. Equipment power-downs that are usually performed on longer missions to preserve cryogenics can result in increased reliability. However, since these power-downs are performed on a case-by-case basis, they are not easily predictable and, therefore, were not incorporated into this analysis. A successful operation is defined as not sustaining a critical series of hardware failures. However, it should be noted that in an operational system, flight rule violation and early mission termination and return would occur prior to the critical failure scenario.

This study evaluated the landing system in two phases, "Approach/Land" and "Mission."

The Approach/Land phase is the point at which the Orbiter lines up with the runway centerline for landing, after coming out of the heading alignment circle. This mission phase begins at about 10,000 feet and lasts about 90 seconds. The probability of successful operation of the hardware necessary to perform an automated landing for such a short period is just over 99.9 % for each of the 110 configurations.

The Mission phase for this evaluation refers to the time interval bounded by orbit insertion and deorbit burn. The initial period selected for this evaluation was 30 days. The different configurations account for greater disparity for this phase than the approach/land phase. Configuring the vehicle so that only one general purpose computer (GPC) and one fuel cell are running, along with the rest of the necessary avionics, results in a probability of 35.8 % of successfully reaching 30 days without sustaining a failure of any of the hardware required for landing. As more of the hardware is required on-orbit, the probability decreases. For example, requiring all 4 GPCs and all 3 fuel cells to be in operation for 30 days will decrease the probability of success from 35.8 % to 17.4 %.

Results of this study indicate that without considering workarounds or in-flight maintenance procedures, the probability of successfully completing a 30-day mission, while requiring all the hardware necessary for an automated landing, can be accomplished only ~36 % of the time. The cutsets (24-hour model included in appendix 1) indicate that the probability of mission success can be improved through changes in mission operations/duration and planning. The results presented in this report should be used for relative comparisons.

If the crew is modeled as being fully capable after 30 days, the probability of a successful manual landing is comparable to that of Autoland because much of the hardware is used for both manual and automated landing modes. The analysis indicates that the reliability for the manual mode is limited by the hardware and depends greatly on crew capability. Crew capability for a successful landing after 30 days has not yet been determined.



## **Introduction**

Extended duration Orbiter missions introduce many new challenges. One such challenge is due to the fact that the Orbiter is the only space reentry vehicle in which the crew is seated upright. This position presents physiological effects that could result in an incapacitated crewmember if adequate countermeasures are not available or not taken. The need for an automated vehicle landing capability becomes significant as mission duration increases. A program decision was made to perform a detailed test objective (DTO) on the Autoland system currently available in the Orbiter. Autoland is the automated Shuttle guidance system that brings the Orbiter from approach and land (A/L) transition through main-gear touchdown to vehicle stop. Transition nominally occurs at 10,000 feet above ground level, at approximately 80 to 90 seconds before touchdown. Autoland has a longitudinal channel that tracks the altitude-range-velocity reference profiles and a lateral channel that tracks the runway centerline. This report documents the results of the reliability analysis performed on the hardware required in support of the DTO. This study evaluates the reliability for the Space Shuttle Autoland capability at the system level.

Autoland was identified as the primary landing procedure required for an extended duration orbiter (EDO) mission. The Reliability Block Diagram Analysis (RBDA) modeling tool was used for analysis. The evaluation considers guidance navigation and control (GN&C) avionics required for atmospheric flight and the necessary mechanical equipment such as electrical power generation (EPG)/power reactant storage and distribution (PRSD), auxiliary power units and the flight control surface actuators. Considering the ability to perform bus ties and general purpose computer (GPC) restrings, there are 110 different ways in which the vehicle subsystems could be configured.

## **Ground Rules**

### **Mean Time Between Failure (MTBF) Calculations**

Where the data were available, the Autoland phase of the study considered anomalies that would result in a redundancy management (RM) failure/annunciation. The Mission phase discounted one-time anomalies and accounted for standby redundancy (power-off failure rate). See appendix 2 for a list of hardware MTBFs by type and power-on times.

Flight crew reliability data are not available at this time for the following reasons:

- Failure rate criteria are best ascertained as a result of measuring errors while the crew performs a tracking function, sometimes referred to as "vigilance." This information is not presently available on the flight crew.
- The Astronaut selection process results in an Astronaut Corps comprising the most skilled and best trained pilots; therefore the Corps cannot be satisfactorily compared to the airline industry for similarity. At the time of the evaluation, it was not clear if military pilot data were easily accessible and therefore such data were not considered.
- Individual variability with respect to the relatively low number of missions per pilot astronaut results in uncertainties too broad for specific evaluation.
- The effect of long-term exposure to zero-g is not well defined at this time. These effects include but may not be limited to neurovestibular effects and orthostasis.

Therefore, the "man-in-the-loop" portion of the model primarily evaluates the reliability of the hardware required for the crew to perform a landing, such as the hand controllers and the displays. The present failure rate for the crewmember has been arbitrarily set at a probability of failure of  $2.5 \times 10^{-6}$ . This probability is equivalent to only 1 failure to perform out of a set of 400,000 attempts.

Hardware failure rates derived for this evaluation are means and should be used for the purpose of relative comparisons. Some additional effort would be required to determine the 90% or 95% confidence limit.

## Systems Evaluated

### Included in Evaluation

---

Guidance Navigation & Flight  
 Control (GN&C)  
 Navigational Aids  
 Hydraulic Systems  
 Landing/Decel  
 Data Processing System (DPS)  
 Electric Power Generation (EPG)  
 Electric Power Distribution and  
 Control (EPD&C)  
 Microwave Scan Beam Landing  
 System

### Excluded from Evaluation

---

Micrometeoroid/Orbital Debris  
 (MMOD)  
 Ku-Band  
 Main Propulsion System (MPS)  
 S-Band  
 Separation System  
 Structures  
 Thermal Protection System (TPS)

### Minimum Equipment

The minimum equipment requirement is based on proposed flight rule 2-100 (appendix 3) which protects against a second failure for safe landing. Where specifically noted, certified levels/requirements were used to evaluate a successful landing without the safety margin (margin analysis).

## **Assumptions**

### **General for Model**

All line replaceable units (LRUs) specifically used for the landing phase are included within this model (reliability data included in appendix 2). Due to the relatively short mission exposure time of the landing phase (approximately 90 seconds), any hardware with MTBF of 50,000 hours or better has reliability of 1 (i.e., probability of failure of 0.0). The hardware time-to-failure distribution is assumed to be exponential (constant failure rate). Autoland software has reliability of 1. The probability of a category 1 failure (loss of vehicle) was not available for this study.

Loss of redundancy of a critical system results in a minimum duration flight or next primary landing sight, in accordance with flight rules (safe versus just barely successful landing). Redundancy shown in this model allows for crew initiation/reconfiguration before entering the landing phase.

All needed systems are up and running once the on-orbit phase has been reached.

The MTBFs for this model will consider only hard failures where the LRU cannot be recovered/recycled. This will discount effects such as single event upsets due to radiation.

All failures are assumed to be independent (no common cause failures or failure propagation).

### **General for Hardware**

The hydraulics systems are modeled as certified by the LRU requirements, which assume no priority rate limiting with exception of the 24-hour reliability evaluation.

Multi-poled switches and multiplexer/demultiplexers (MDMs) are modeled for worst-case scenarios (i.e., partial LRU failures are considered total LRU failures). The MDM could suffer loss of half a box (one bus interface unit) where port-moding may restore functionality. Subsequent loss of the restored functions would require the loss of the corresponding other half of the other MDM that picked up those functions. This would be equivalent to losing both halves of a single MDM. Therefore, port-moding of MDMs was not included in this model.

Switches and circuit breakers are rated by cycles and are given a reliability of 1. Busses and cables have a reliability of 1, and therefore are included in this model only as a naming convention.

For the water spray boiler (WSB), all ground failures are associated with thermal conditions and electrical checks are done only during turnaround.

For the WSB Cooling, all flight failures are associated with the cooling function and no cooling is performed during ground turnaround.

The MTBF for the brake skid control system is based on the brake skid control box. This hardware is a vendor proprietary design; therefore no further data are available.

## **Approach/Landing Model**

For the Autoland part of the model, only completely automated LRUs are included with the exception of brakes.

The proposed flight rule accurately describes no-go guidelines as specified for the STS-53 DTO.

All needed systems are in a defined configuration at the time of entering the landing phase.

All redundancy shown in the Autoland part of the model is automated (i.e., no crew intervention needed to reconfigure during Autoland). Each reconfiguration is evaluated separately.

No port-modging (of the MDMs) performed after heading alignment cylinder (HAC) intercept.

Where the data were available the MTBFs for this model considered anomalies such as one-time occurrences and single event upsets if they would result in the hardware being failed by RM. This results in slightly lower probability of success for the short duration, but will be more realistic assuming the crew is either unavailable or lacks the time/resources to determine equipment health.

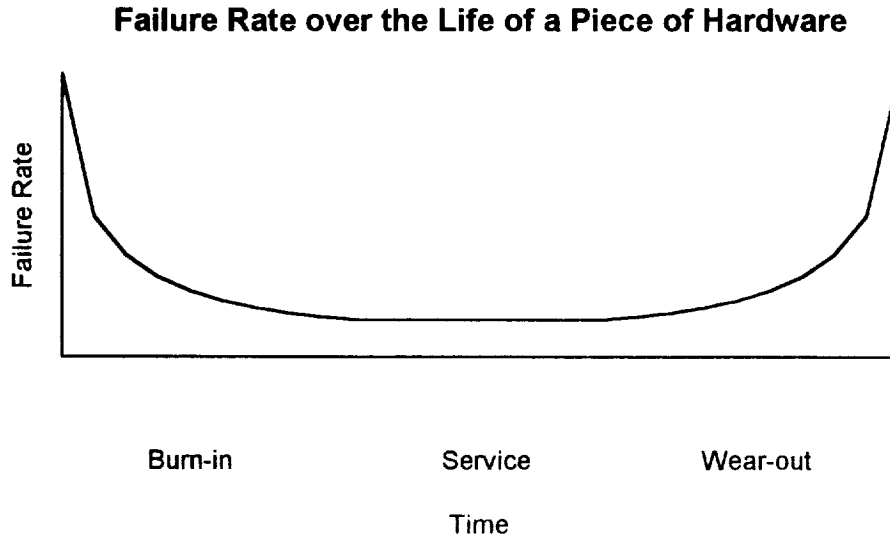
Since only one nose wheel steering (NWS) string can be used during Autoland and change to the backup cannot be done automatically, only the primary NWS will be shown on the Autoland part of the model with exception of the 24-hour reliability evaluation. This is so that the presence of the additional NWS will not cause the predicted numbers to be incorrect.

The manual part of this model includes crew initiation/reconfiguration during the landing phase.

## Reliability Analysis

### Analysis Based on a Weibull Distribution

The "bathtub curve" is a familiar graph that represents the number of failures as a population of hardware is taken through burn-in, service and wear-out, where the failure rate is the reciprocal of the MTBF.



The reliability of a system of this type can be modeled using the Weibull distribution. The Weibull distribution can also determine when a type of hardware has emerged from the infant mortality region (burn-in), as well as when it enters the wear-out region. However, the methods used to determine these transitions require more than a brief presentation of the Weibull distribution since each region is modeled separately. To better understand this distribution see discussion, in appendix 4. The reliability equation for this type of distribution is

$$R(t) = e^{-\left(\frac{t}{\eta}\right)^\beta} \quad (\text{Appendix 4, equation 11})$$

where  $\beta$  is called the shape factor and  $\eta$  is called the characteristic life. The characteristic life is the time for which the probability of failure is 63.2%.

When  $\beta > 1$ , the hardware is exhibiting wear out.

When  $\beta < 1$ , the hardware is exhibiting infant mortality.

When  $\beta = 1$ , the average failure rate is constant for the surviving population (equivalent to the exponential distribution).

It is reasonable to assume that during a single mission or a series of consecutive missions, the hardware will not indicate wear-out/degradation. Where there is degradation, it can be assumed that the processing of the vehicle will result in adequate maintenance and/or recalibration. Therefore, there will be no noticeable change in the rate of failure for the hardware population. Since the vehicle hardware may undergo repair, the replaced shop replaceable units (SRU) would result in a system rate of failure that would appear more constant rather than increasing (indicating wear-out). Therefore the simplifying assumption can be made that  $\beta = 1$  and the failure rates are constant.

When the failure rate is constant, the probability that a box will fail in the time interval zero to  $t$  is the same as the probability of failure from  $t$  to  $2t$  given that it has operated up to time  $t$ . Therefore we can specify the interval of time being evaluated as  $\tau$ , since the reliability is dependent on a specific point in time. The elapsed time  $\tau$  is equal to  $t$  when the interval of time being evaluated starts at time zero ( $t_0 = 0$ ).

The reliability or probability of success ( $P_s$ ) that a box will operate without failure is a function of the time interval  $\tau$  and the failure rate  $\lambda$  of that box.

Considering a single LRU, the reliability would be

$$R(\tau) = 1 - Q(\tau) = e^{-\lambda\tau} \quad (1)$$

where  $Q$  is defined as unreliability (probability of failure).

In practice, to improve the system reliability, LRUs are used in a parallel redundant set. Assuming only "k" of the available "n" identical parallel LRUs are required to satisfactorily perform a given function, and that all the units are being operated simultaneously, the formula for k out of n (k-of-n) parallel redundant units is

$$P_{S_{k/n}} = \sum_{i=k}^n \frac{n!}{i!(n-i)!} R^i(\tau) (1 - R(\tau))^{(n-i)}$$

based on the binomial expansion, a convenient way of accounting for all possible combinations.

Substituting equation 1 for  $R$  yields

$$P_{S_{k/n}} = \sum_{i=k}^n \frac{n!}{i!(n-i)!} (e^{-\lambda\tau})^i (1 - e^{-\lambda\tau})^{(n-i)} \quad (2)$$

The probability of success for series combinations (or groups of parallel LRUs) is the product of the individual probabilities for each LRU (or group) in the serial combination.

When the combinations of series and parallel (and nested series and parallel combinations) approach the complexity found in the Orbiter system, these analyses can become quite complex.

A benefit of reliability assessment is the evaluation of system reliability as a function of LRU reliability. This is referred to as sensitivity analysis. Sensitivity analysis evaluates the system as a whole repetitively for a range of individual LRU failure rates to determine the effect that an individual LRU will have on the system.

When determining the level of redundancy required for a type of hardware, first the desired reliability (Ps) must be established. If the minimum reliability would be to accept, on the average, one failure out of every 50 uses, then the reliability would be 98%, or Ps=.98.

$$R = \frac{\text{Success}}{\text{Total}} = \frac{\text{Total} - \text{Failure}}{\text{Total}} = \frac{49}{50} = 98\% \quad (3)$$

Consider the following.

From equation 2 above, the probability of success for 1 out of 2 parallel redundant units would be

$$P_{S_{1/2}} = e^{-2\lambda\tau} + \frac{2(1-e^{-\lambda\tau})}{e^{\lambda\tau}}$$

The probability of success for 2 out of 3 units would be

$$P_{S_{2/3}} = e^{-3\lambda\tau} + \frac{2(1-e^{-\lambda\tau})}{e^{2\lambda\tau}}$$

The probability of success for 3 out of 4 units would be

$$P_{S_{3/4}} = e^{-4\lambda\tau} + \frac{1(1-e^{-\lambda\tau})}{e^{3\lambda\tau}}$$

Next let's increase the fault tolerance one more level and see what happens.

The probability of success for 1 out of 3 units would be

$$P_{S_{1/3}} = e^{-3\lambda\tau} + \frac{3(1-e^{-\lambda\tau})}{e^{2\lambda\tau}} + \frac{3(1-e^{-\lambda\tau})^2}{e^{\lambda\tau}}$$

The probability of success for 2 out of 4 units would be

$$P_{S_{2/4}} = e^{-3\lambda\tau} + \frac{4(1-e^{-\lambda\tau})}{e^{3\lambda\tau}} + \frac{6(1-e^{-\lambda\tau})^2}{e^{2\lambda\tau}}$$

Increasing to one more level results in adding another term.

The probability of success for 1 out of 4 units would be

$$P_{S_{1/4}} = e^{-3\lambda\tau} + \frac{4(1-e^{-\lambda\tau})}{e^{3\lambda\tau}} + \frac{6(1-e^{-\lambda\tau})^2}{e^{2\lambda\tau}} + \frac{4(1-e^{-\lambda\tau})^3}{e^{\lambda\tau}}$$

Other configurations can be derived in the same manner. A series combination would require the proper operation of all units in the serial path. Therefore the reliabilities are multiplied together to determine the total reliability of the serial path.



The Orbiter landing system as a manual operation consists, in part, of the crewman, hydraulics, aerosurface avionics, GPCs, MDMs, displays and controls. This is just some of the equipment in the path for both commander and pilot, either of which could be in a head-up or head-down position. Just this much of the model gets complicated very rapidly when one considers that the commander and pilot, in series with their displays and controls, are parallel to each other and that both could be in either a head-up or head-down configuration (a 1-of-2 parallel system nested in a 1-of-4 parallel system). Extending this discussion, include the GPCs (1-of-4) to issue commands to the aerosurface servo amplifiers (2-of-4) to control the aerosurface hydraulics which receives hydraulic power from the auxiliary power units (2-of-3).

Many times in real systems, the hardware is not quite identical or is not always operated in unison as a full redundant set. Sometimes a portion of the redundant set may be powered down to conserve energy or consumables. Other times there may be similar hardware that functions identically, but has very different failure rates. When this is the case, a simple general form of the reliability equation is not possible. Instead an alternate method needs to be employed that will calculate the reliability considering all possible combinations. Rather than using manual methods for systems as complex as Orbiter, a software tool is preferable.

## Analysis Tool

The reliability block diagram (RBD) approach was used to model the Orbiter landing system.

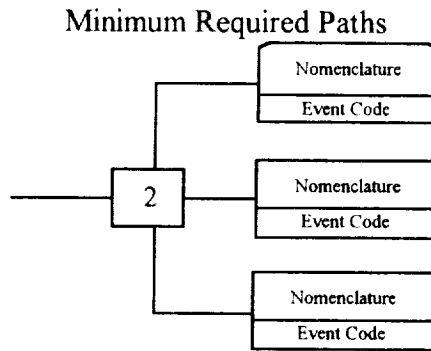
The tool used for the Autoland analysis was SAIC's RBDA version 2.1.

## Preliminaries

### Terminology



A basic event is displayed in the model with the nomenclature in the upper portion of the block and the unique code identifying the event in the lower. A nested module is displayed just like the basic event, except that the top corners are "rounded" and a nested module may contain basic events and/or more nested modules. These blocks are then assembled as sets of series or parallel paths or combinations of both. The minimum set is the minimum number of paths required to complete a function. It is identified by the number placed in the block in front of the group (diverging node).

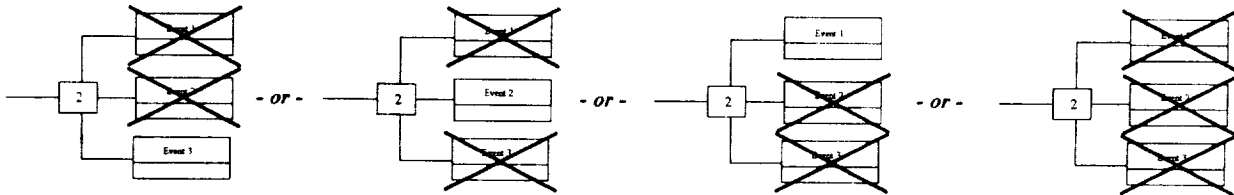


A function is modeled as a path; i.e., to perform a function is to complete that path in the model. All necessary hardware required for a function is therefore included in that path and can model the system including redundancy (like or unlike). Therefore to fail the function would require a “cut” in the path to prevent completion of that function. The collection of hardware elements, which if failed “cut” the function is referred to as a “cut-set”.

The Orbiter landing Reliability Block Diagrams, resulting cut-sets and probabilities are included in appendix 1.

### A Simple Example of a Cut-Set

For example, let's assume that the above module is named "Case-1". Then we can see that the possible failure scenarios will look like the following.



Now if we assume the following probability of each event occurring (probability of failure) to be

$$P_{Event1} = .1 \quad P_{Event2} = .2 \quad P_{Event3} = .3$$

Then the probability of each event NOT occurring (probability of success) is

$$\bar{P}_{Event1} = .9 \quad \bar{P}_{Event2} = .8 \quad \bar{P}_{Event3} = .7$$

This will result in a cut-set report that looks like

Description	Rate	Exposure	B.E. Prob.	Mod/CS Prob
-----	----	-----	-----	-----
Case-1				.098
1) Event 1			.1	.014
Event 2			.2	
2) Event 1			.2	.024
Event 3			.3	
3) Event 2			.2	.054
Event 3			.3	
4) Event 1			.1	.006
Event 2			.2	
Event 3			.3	

Translated into English, this chart states that the probability that the function modeled by "Case-1" will fail is 0.098 or 9.8%. In other words the **reliability** would be 90.2%. Each of cut-sets 1 - 4 gives the probability that its specific scenario of events occurs. The probability of the module is the sum total of the probability of each possible combination.

The probability of occurrence for cut-set 1 is the probability that event 1 failed (.1) times the probability that event 2 failed (.2) times the probability that event 3 did NOT fail (.7) .

$$P_{(Event1)} \cdot P_{(Event2)} \cdot P_{(Event3)} = P_{(Cutset1)} \quad (4)$$

$$(.1) \cdot (.2) \cdot (.7) = .014$$

The probability of occurrence for cut-set 2 is the probability that event 1 failed (.1) times the probability that event 3 failed (.3) times the probability that event 2 did NOT fail (.8) .

$$P_{(Event1)} \cdot P_{(Event3)} \cdot P_{(Event2)} = P_{(Cutset2)} \quad (5)$$

$$(.1) \cdot (.3) \cdot (.8) = .024$$

The probability of occurrence for cut-set 3 is the probability that event 2 failed (.2) times the probability that event 3 failed (.3) times the probability that event 1 did NOT fail (.9) .

$$P_{(Event2)} \cdot P_{(Event3)} \cdot P_{(Event1)} = P_{(Cutset3)} \quad (6)$$

$$(.2) \cdot (.3) \cdot (.9) = .054$$

The probability of occurrence for cut-set 4 is the probability that event 1 failed (.1) times the probability that event 2 failed (.2) times the probability that event 3 failed (.3) .

$$P_{(Event1)} \cdot P_{(Event2)} \cdot P_{(Event3)} = P_{(Cutset4)} \quad (7)$$

$$(.1) \cdot (.2) \cdot (.3) = .006$$

Therefore the probability of occurrence for "Case-1" is:

$$P_{(Cutset1)} + P_{(Cutset2)} + P_{(Cutset3)} + P_{(Cutset4)} = P_{("Case-1")} \quad (8)$$

$$.014 + .024 + .054 + .006 = .098$$

-or-

9.8% Probability of Losing at least 2 of 3 paths

The rate and exposure columns are  $\lambda$  and  $\tau$  respectively. These values when provided are used to determine the probabilities using equation 1.

When all the pieces of hardware, their  $\lambda$ 's and  $\tau$ 's, are identical, equation 2 can be used in place of equations 1, 4, 5, 6, 7, and 8.

RBDA models have structures similar to process diagrams, in which system functionality is modeled by serial and parallel processes and can identify what LRUs/subsystems support the modeled mode of operation as well as identify weak links in the system. One of the products of the RBDA tool is an estimate of the system probability of success. The RBDA tool models a static system. Reconfigured modules must be evaluated separately. For the Autoland function, models were constructed for both normal operation and minimum equipment scenarios.

### **RBDA Database Structure**

The Database coding scheme is included in appendix 5.

#### ***Basic Event***

This code is used in the model to identify each piece of hardware (or each failure mode of a single piece of hardware). A single basic event may repeat throughout the model, such as the case of the MDMs, which are physically attached to several pieces of hardware.

The RBDA tool evaluates the model by failing each basic event (in all places where it appears) and determining the hardware failure combinations required to fail a function. Each cut-set identifies a failure scenario similar to the FMEA/CIL except that it comes with a Probability of Occurrence.

#### ***Type Code***

This code is a subset of the basic event code, which defines the failure rate on the equipment type. For example, all the GPCs will be of the same type and therefore have the same failure rate.

## Autoland Reliability Analysis

Autoland brings the Orbiter from A/L at 10,000 feet above ground level, approximately 80 to 90 seconds before touchdown, through main-gear touchdown to vehicle stop. It has a longitudinal channel that tracks the altitude-range-velocity reference profiles and a lateral channel that tracks the runway centerline.

Autoland as a primary system was identified as a requirement for landing following an EDO mission or a long duration Orbiter (LDO) mission (28 to 90 days). The Autoland DTO was scheduled for STS-53 (a standard 6-day mission), and was to be performed in support of verification of the Autoland function. However, after the start of this analysis, the decision was made that the Shuttle would not exceed a 15-day mission, thereby negating an LDO mission. This in turn resulted in the Autoland DTO being canceled. Since the Autoland concept can be implemented at a later date, the analysis was continued to give technically complete and accurate results for future use.

## RBDA Landing Model

Two main models are evaluated, the Autoland model and the manual model. The main body of both models is the portion of the vehicle that cannot be reconfigured on-orbit.

Avionics such as inertial measurement units (IMUs) and aerosurface servoactuator amplifier (ASAs) are connected to only one MDM; therefore, the MDM is contained in the main body of the model. The other side of the MDM may be a connection to all GPCs in the case of a sensor, or a specific GPC in the case of an effector. This portion of the modeling is accomplished using model reconfiguration tools.

Reconfigurable modules are modeled in separate RBDs and imported at the time of evaluation. The module configurations identified below are detailed in appendix 5.

### Reconfiguration

- Electric Power Distribution (EPD) Configures the fuel cells on the appropriate busses. This accounts for system differences resulting from performing bus ties subsequent to losing a fuel cell.
- Data Processing System (DPS) Configures the GPCs on the appropriate flight control busses. This accounts for system differences resulting from performing restringing.
- MAN Used to configure the model appropriately for when either the commander or pilot is the "pilot-in-command" of the vehicle.

This analysis assumes the loss of redundancy of only one critical function based on an orderly buildup to longer missions, and detection upon failure of critical hardware. Therefore, the reconfigurations have been considered and evaluated separately. All failures evaluated for each system are considered to have occurred during entry and are not reconfigured. These reconfigurable items are fuel cells, GPCs, and "pilot-in-command."

## System Definition

The nominal system configuration is defined as the model without any reconfiguration of the fuel cells or the GPCs. This system assumes a full set of each of the reconfigurable items.

There are 110 model configurations. The Autoland and the manual landing models used 55 each. The multiple configurations stem from the fact that both the GPCs and the fuel cells (FCs) can be reconfigured to relay data and power, respectively, to multiple lines of LRUs, or strings. However, neither the GPCs nor the FCs can be automatically switched during the 90-second phase. Consequently, both Autoland and manual models are evaluated for each possible different configuration in which they could enter "A/L interface to wheel stop." The 4 GPCs can be restrung to 4 flight critical strings (FCSs) with a total of 11 unique configurations. These configurations take into account the loss of 0 to 3 GPCs. The 3 FCs can be routed to 3 main power supplies in 5 unique configurations. These configurations take into account the loss of 0 to 2 FCs. The models both take into account all possible combinations of the above configurations, a total of 55 unique possible reconfigurations.

On the 30-day mission model, the powered-on and -off times are collected and integrated into the models. This is not necessary for the 90-second model because only the equipment needed for landing was taken into account for this model. Along with the powered on and off times, MTBFs for LRUs powered off are integrated as well.

## **Results**

The analysis has included the hardware used during either an Autoland or manual landing, based on a list of assumptions to build these specific models and functional block diagrams to describe the hardware flight requirements. Background information on the LRUs was compiled including failure modes, MTBFs and reconfigurable modes. For more accuracy, the failure modes effects analysis/critical items list (FMEA/CIL) (listing included as appendix 7) for the required landing hardware was reviewed to incorporate into the models any changes of criticality because of manual and automated requirements.

Several models have been generated and two generic models have been analyzed. The evaluation of Autoland "A/L interface to wheel stop" gave a 99.913% to 99.916% probability of success for the 110 different possible hardware configurations, both under automatic and manual control. It was determined that the equipment would have minimal problems operating successfully through the 90-second phase, for either auto or manual landing. However, the evaluation of Autoland "on-orbit to A/L interface" for a 30-day mission gave a very low probability of success ranging from 17.4% to 35.8% for required hardware depending on the initial system configuration. The Orbiter was designed for a nominal 7-day mission. Success rates on longer duration missions indicate that on-orbit maintenance and/or operational workarounds will be required to extend mission on-orbit time.

The 17.4% probability of success is based on nominal hardware configuration. In other words, during that 30-day mission there is a 17.4% chance of not sustaining a failure that would cause violation of the minimum equipment list specified for the landing phase. All the GPCs and FCs are single failure points for this configuration, but are not the only failures that can occur. However, loss of either a GPC or a FC means loss of up to a 1/3 of the equipment, due to lack of data or power. The 17.4% probability represents the chance that the mission will succeed without sustaining its first critical failure. Subsequent to this failure, restringing/bus tie operations would allow additional on-orbit stay capability until the minimum equipment list is in danger of being violated. The 35.8% probability represents the chance that the vehicle could complete a 30-day mission configured with only 1 GPC and 1 FC.

### **Manual vs. Auto**

No one can dispute that the man-in-the-loop is far more capable (robust) when it becomes necessary to adapt to the off-nominal conditions that may occur during Orbiter landing operations. However, the pilot-in-command when placed in the loop is still subject to the reliability of the rest of the loop.

Consider the following for a 24-hour period:

The pilot, in the head-down position in the vehicle, receives information from the displays which are supplied by the sensors via the GPC's. The following displays all have reliabilities between 96% and 98.9%;

- Attitude direction indicator (ADI)
- Alpha mach indicator (AMI)
- Horizontal situation indicator (HSI)
- Altitude vertical velocity indicator (AVVI)

Since these are required, as a group they reduce the head-down reliability to ~ 92% (equivalent to series reliability).

When in the head-up position, the pilot becomes the weakest link in the system, because the precision alignment pilot indicator (PAPI) lights and Ball Bar have been assumed to be 100% reliable. When the pilot is placed back in the system, the vehicle still depends on crew inputs that have to come through the rotation hand control (RHC), rudder pedal transducer assembly (RPTA), and the speed brake/thrust control (SBTC), all of which have reliabilities between 98.7% and 98.9%. This reduces the head-up reliability to ~ 98%.

Treating the head-down and head-up positions as unlike redundancy, and treating the pilot and commander as like redundancy brings the manual element reliability up to ~ 99.8%. Adding the remaining portion of the system that is not unique to manual landing (for example, the aerosurfaces) brings the overall manual landing reliability down to 94.37%.

The Autoland reliability, however, is 94.22%, just slightly below the manual reliability. The crew cannot be faulted for the manual reliability since they are assumed to be one of the more reliable elements in a portion of the system that has a lower overall reliability.

Going one step further and treating the manual capability and auto capability as parallel systems, raises the vehicle landing system reliability to 94.51%.

To put this in perspective, let's rearrange equation 3:

$$Total = \frac{Failure}{(1 - R)}$$

Setting Failure equal to 1 suggests that these reliabilities would be equivalent to experiencing one failure in the following number of attempts that would require some type of reconfiguration or workaround.

<i>Equivalent Experience</i>	<i>Mode</i>	<i>Reliability</i>
$\frac{1}{(1-9437)} \cong 17.7$	<i>Manual attempts</i>	<i>for R = 94.37%</i>
$\frac{1}{(1-9422)} \cong 17.3$	<i>Auto attempts</i>	<i>for R = 94.22%</i>
$\frac{1}{(1-9451)} \cong 18.2$	<i>Combined system attempts</i>	<i>for R = 94.513%</i>

The crew could also provide the capability of increasing the Autoland reliability if they can resolve any dilemmas between two remaining identical LRUs, reducing the minimum equipment requirements beyond the present limits.

These reliabilities would be the forecast based on landing in 24 hours from the point of evaluation (the time of declaration of a minimum duration flight).



Setting the reliability for the APUs equal to 1 results in the following:

$$\begin{array}{lll} \frac{1}{(1-0.9444)} \cong 18 & \text{Manual attempts} & \text{for } R = 94.44\% \\ \frac{1}{(1-0.9429)} \cong 17.5 & \text{Auto attempts} & \text{for } R = 94.29\% \\ \frac{1}{(1-0.9458)} \cong 18.4 & \text{Combined system attempts} & \text{for } R = 94.583\% \end{array}$$

Using the same criteria from above and assuming that Edwards Lakebed is available for landing, brakes would not be required for landing if stopping prior to the end of the runway is not a requirement. This would result in the following:

$$\begin{array}{lll} \frac{1}{(1-0.9643)} \cong 28 & \text{Manual attempts} & \text{for } R = 96.43\% \\ \frac{1}{(1-0.9634)} \cong 27.4 & \text{Auto attempts} & \text{for } R = 96.34\% \\ \frac{1}{(1-0.9657)} \cong 29.2 & \text{Combined system attempts} & \text{for } R = 96.57\% \end{array}$$

The equipment within these models represents more than the functional subset needed for landing. Several of the LRUs are used for multiple functions and in some cases, like the GPCs and FCs, are needed for the mission success.

## **Conclusions**

In determining the probability that the hardware will be available to support vehicle landing, it has been shown that if there is no failure prior to A/L interface there is little difference in reliability for manual versus auto landing. A 24-hour reliability forecast begins to distinguish slight differences between manual and auto modes. It should also be noted that the 24-hour model assumed that there was a capability to switch from NWS system one to system two (not a current capability of the vehicle).

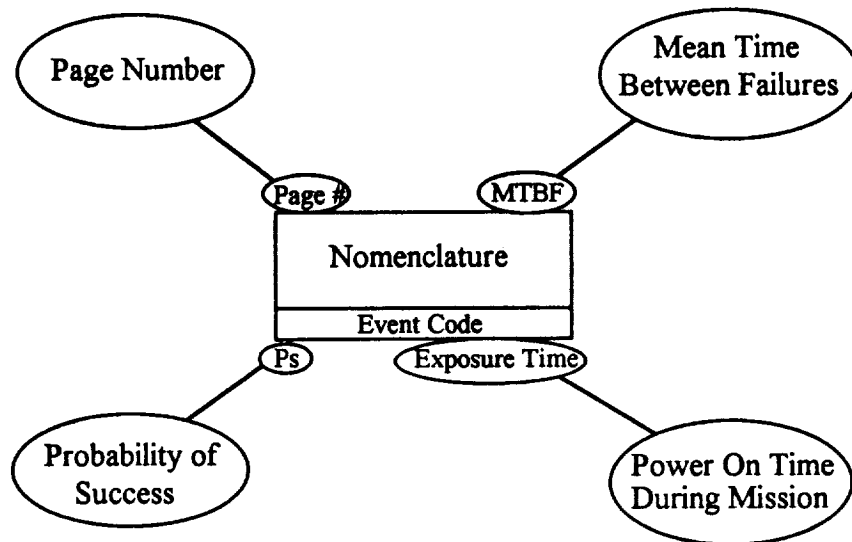
As the mission duration increases toward a 15 or a 30 day span, some modifications or workarounds will be required to prevent early mission termination. It should also be noted that the 24-hour evaluation indicates that there could be reasonable capability to evaluate the maximum time to return should a minimum duration mission be declared.

The model can also be used to evaluate a range of crew capabilities as data become available on long term exposure to zero-g. This type of evaluation can be used to study the crew's effect on the system if their abilities were to degrade as a result of long term zero-g exposure, and is referred to as sensitivity analysis.

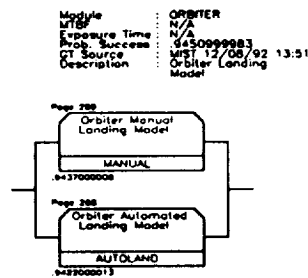
On-orbit maintenance will be required to extend mission duration time. Further analysis of on-orbit replacement and maintenance is recommended as a part of any effort to extend vehicle on-orbit stay capabilities.

## **Appendix 1:** **Reliability Block Diagrams**

The model structure and nomenclature have been discussed earlier in this document. However, the following model has been generated with one more feature that should be mentioned. The page numbers, MTBFs, power-on times, and reliabilities are shown on the four corners of the basic event boxes within each module as illustrated below.



The following is the first block diagram of the model.



# The Model - Module Report

Module Name	Ref.	Description
1) ORBITER.....		
2)   MANUAL.....		
3)   CDR-U.....		
4)    HUD-L.....		Head Up Display - Left
5)      MAIN-A.....		Main Power Supply - A
6)        FC-1.....		Fuel Cell 1
7)       FCS-4.....		Flight Critical String (FCS) 4
8)       GPC-4.....		General Purpose Computer (GPC) 4
9)       FCS-3.....		Flight Critical String (FCS) 3
10)      GPC-3.....		General Purpose Computer (GPC) 3
11)      FCS-2.....		Flight Critical String (FCS) 2
12)      GPC-2.....		General Purpose Computer (GPC) 2
13)      FCS-1.....		Flight Critical String (FCS) 1
14)      GPC-1.....		General Purpose Computer (GPC) 1
15)   RADAR-ALT.....		Radar Altimeter
16)      MAIN-A.....	5	Main Power Supply - A
17)      MAIN-B.....		Main Power Supply - B
18)        FC-2.....		Fuel Cell 1
19)      MDMFF-1.....		Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
20)      MAIN-A.....	5	Main Power Supply - A
21)      MAIN-B.....	17	Main Power Supply - B
22)      MDMFF-2.....		Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
23)      MAIN-B.....	17	Main Power Supply - B
24)      MAIN-C.....		Main Power Supply - C
25)        FC-3.....		Fuel Cell 1
26)      FCS-1.....	13	Flight Critical String (FCS) 1
27)      FCS-2.....	11	Flight Critical String (FCS) 2
28)   MSBLS.....		Microwave Scanning Beam Landing System
29)      MAIN-A.....	5	Main Power Supply - A
30)      MAIN-B.....	17	Main Power Supply - B
31)      MAIN-C.....	24	Main Power Supply - C
32)      MDMFF-1.....	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
33)      MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
34)      MDMFF-3.....		Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
35)      MAIN-A.....	5	Main Power Supply - A
36)      MAIN-C.....	24	Main Power Supply - C
37)      FCS-1.....	13	Flight Critical String (FCS) 1
38)      FCS-3.....	9	Flight Critical String (FCS) 3
39)      FCS-2.....	11	Flight Critical String (FCS) 2
40)   IMU.....		Inertial Measurement Unit (IMU)
41)      MAIN-A.....	5	Main Power Supply - A
42)      MAIN-B.....	17	Main Power Supply - B
43)      MAIN-A.....	5	Main Power Supply - A
44)      MAIN-C.....	24	Main Power Supply - C
45)      MAIN-C.....	24	Main Power Supply - C
46)      MAIN-B.....	17	Main Power Supply - B
47)      MDMFF-1.....	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
48)      MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
49)      MDMFF-3.....	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
50)      FCS-1.....	13	Flight Critical String (FCS) 1
51)      FCS-2.....	11	Flight Critical String (FCS) 2
52)      FCS-3.....	9	Flight Critical String (FCS) 3
53)   PLT-U.....		
54)    HUD-R.....		Head Up Display - Right
55)      MAIN-C.....	24	Main Power Supply - C
56)      FCS-1.....	13	Flight Critical String (FCS) 1
57)      FCS-2.....	11	Flight Critical String (FCS) 2
58)      FCS-3.....	9	Flight Critical String (FCS) 3
59)      FCS-4.....	7	Flight Critical String (FCS) 4
60)   RADAR-ALT.....	15	Radar Altimeter
61)   MSBLS.....	28	Microwave Scanning Beam Landing System
62)   IMU.....	40	Inertial Measurement Unit (IMU)
63)   CDR-D.....		
64)    ADI-L.....		Attitude Director Indicator - Left
65)      DDU-L.....		Display Driver Unit - Left
66)      MAIN-A.....	5	Main Power Supply - A
67)      MAIN-B.....	17	Main Power Supply - B
68)        FCS-4.....	7	Flight Critical String (FCS) 4
69)        FCS-3.....	9	Flight Critical String (FCS) 3
70)        FCS-2.....	11	Flight Critical String (FCS) 2
71)        FCS-1.....	13	Flight Critical String (FCS) 1
72)   AMI-L.....		Alpha Mach Indicator / Electronics (AMI/E) - Left
73)      MAIN-A.....	5	Main Power Supply - A
74)      DDU-L.....	65	Display Driver Unit - Left
75)   HSI-L.....		Horizontal Situation Indicator - Left
76)      MAIN-A.....	5	Main Power Supply - A
77)      DDU-L.....	65	Display Driver Unit - Left
78)   AVVI-L.....		Altitude Vertical Velocity Indicator / Electronics (AVVI/E) - Left
79)      MAIN-A.....	5	Main Power Supply - A
80)      DDU-L.....	65	Display Driver Unit - Left
81)   SPI.....		Surface Position Indicator (SPI)
82)      MAIN-A.....	5	Main Power Supply - A
83)      MDMFF-1.....	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
84)      FCS-1.....	13	Flight Critical String (FCS) 1
85)   RADAR-ALT.....	15	Radar Altimeter
86)   MSBLS.....	28	Microwave Scanning Beam Landing System
87)   IMU.....	40	Inertial Measurement Unit (IMU)
88)   PLT-D.....		
89)    ADI-R.....		Attitude Director Indicator - Right
90)      DDU-R.....		Display Driver Unit - Right
91)      MAIN-B.....	17	Main Power Supply - B
92)      MAIN-C.....	24	Main Power Supply - C

# Orbiter Autoland Reliability Analysis

Module Name	Ref.	Description
93) FCS-1.....	13	Flight Critical String (FCS) 1
94) FCS-2.....	11	Flight Critical String (FCS) 2
95) FCS-3.....	9	Flight Critical String (FCS) 3
96) FCS-4.....	7	Flight Critical String (FCS) 4
97) AMI-R.....		Alpha Mach Indicator / Electronics (AMI/E) - Right
98) MAIN-B.....	17	Main Power Supply - B
99) DDU-R.....	90	Display Driver Unit - Right
100) HSI-R.....		Horizontal Situation Indicator - Right
101) MAIN-B.....	17	Main Power Supply - B
102) DDU-R.....	90	Display Driver Unit - Right
103) AVVI-R.....		Altitude Vertical Velocity Indicator / Electronics (AVVI/E) - Right
104) MAIN-B.....	17	Main Power Supply - B
105) DDU-R.....	90	Display Driver Unit - Right
106) SPI.....	81	Surface Position Indicator (SPI)
107) RADAR-ALT.....	15	Radar Altimeter
108) MSBLS.....	28	Microwave Scanning Beam Landing System
109) IMU.....	40	Inertial Measurement Unit (IMU)
110) RHC-L.....		Rotation Hand Controller - Left
111) MAIN-A.....	5	Main Power Supply - A
112) MAIN-B.....	17	Main Power Supply - B
113) DDU-L.....	65	Display Driver Unit - Left
114) MDMFF-1.....	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
115) MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
116) MDMFF-3.....	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
117) FCS-1.....	13	Flight Critical String (FCS) 1
118) FCS-2.....	11	Flight Critical String (FCS) 2
119) FCS-3.....	9	Flight Critical String (FCS) 3
120) MDMOF-4.....		Multiplexer Demultiplexer (MDM) Operational Instrumentation Forward (OF) 4
121) MAIN-C.....	24	Main Power Supply - C
122) MAIN-A.....	5	Main Power Supply - A
123) RHC-R.....		Rotation Hand Controller - Right
124) MAIN-B.....	17	Main Power Supply - B
125) MAIN-C.....	24	Main Power Supply - C
126) DDU-R.....	90	Display Driver Unit - Right
127) MDMFF-1.....	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
128) MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
129) MDMFF-3.....	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
130) FCS-1.....	13	Flight Critical String (FCS) 1
131) FCS-2.....	11	Flight Critical String (FCS) 2
132) FCS-3.....	9	Flight Critical String (FCS) 3
133) MDMOF-4.....	120	Multiplexer Demultiplexer (MDM) Operational Instrumentation Forward (OF) 4
134) SBTC-L.....		Speed Brake / Thrust Control (SBTC) - Left
135) MAIN-A.....	5	Main Power Supply - A
136) MAIN-B.....	17	Main Power Supply - B
137) DDU-L.....	65	Display Driver Unit - Left
138) MDMFF-1.....	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
139) MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
140) MDMFF-3.....	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
141) FCS-1.....	13	Flight Critical String (FCS) 1
142) FCS-2.....	11	Flight Critical String (FCS) 2
143) FCS-3.....	9	Flight Critical String (FCS) 3
144) SBTC-R.....		Speed Brake / Thrust Control (SBTC) - Right
145) MAIN-B.....	17	Main Power Supply - B
146) MAIN-C.....	24	Main Power Supply - C
147) DDU-R.....	90	Display Driver Unit - Right
148) MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
149) MDMFF-3.....	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
150) MDMFF-4.....		Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
151) MAIN-B.....	17	Main Power Supply - B
152) MAIN-C.....	24	Main Power Supply - C
153) FCS-2.....	11	Flight Critical String (FCS) 2
154) FCS-3.....	9	Flight Critical String (FCS) 3
155) FCS-4.....	7	Flight Critical String (FCS) 4
156) RPTA-R.....		Rudder Pedal Transducer Assembly (RPTA) - Right
157) MAIN-B.....	17	Main Power Supply - B
158) MAIN-C.....	24	Main Power Supply - C
159) DDU-R.....	90	Display Driver Unit - Right
160) MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
161) MDMFF-3.....	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
162) MDMFF-4.....	150	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
163) FCS-2.....	11	Flight Critical String (FCS) 2
164) FCS-3.....	9	Flight Critical String (FCS) 3
165) FCS-4.....	7	Flight Critical String (FCS) 4
166) MDMOF-2.....		Multiplexer Demultiplexer (MDM) Operational Instrumentation Forward (OF) 2
167) MAIN-A.....	5	Main Power Supply - A
168) MAIN-B.....	17	Main Power Supply - B
169) RPTA-L.....		Rudder Pedal Transducer Assembly (RPTA) - Left
170) MAIN-A.....	5	Main Power Supply - A
171) MAIN-B.....	17	Main Power Supply - B
172) DDU-L.....	65	Display Driver Unit - Left
173) MDMFF-1.....	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
174) MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
175) MDMFF-3.....	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
176) FCS-1.....	13	Flight Critical String (FCS) 1
177) FCS-2.....	11	Flight Critical String (FCS) 2
178) FCS-3.....	9	Flight Critical String (FCS) 3
179) MDMOF-1.....		Multiplexer Demultiplexer (MDM) Operational Instrumentation Forward (OF) 1
180) MAIN-A.....	5	Main Power Supply - A
181) MAIN-B.....	17	Main Power Supply - B
182) BRAKE.....		Brakes
183) MAIN-C.....	24	Main Power Supply - C
184) MAIN-B.....	17	Main Power Supply - B

# The Model - Module Report

Module Name	Ref.	Description
185) MAIN-A.....	5	Main Power Supply - A
186) HYD-3.....		Hydraulics (HYD) 3
187) APU-3.....		Auxiliary Power Unit - 1
188) HYD-1.....		Hydraulics (HYD) 1
189) APU-1.....		Auxiliary Power Unit - 1
190) HYD-2.....		Hydraulics (HYD) 2
191) APU-2.....		Auxiliary Power Unit - 1
192) HYD-3.....	186	Hydraulics (HYD) 3
193) ADTA.....		Air Data Transducer Assembly (ADTA)
194) MOTOR-L.....		
195) MAIN-A.....	5	Main Power Supply - A
196) MAIN-B.....	17	Main Power Supply - B
197) MOTOR-R.....		
198) MAIN-C.....	24	Main Power Supply - C
199) MAIN-B.....	17	Main Power Supply - B
200) MAIN-A.....	5	Main Power Supply - A
201) MAIN-C.....	24	Main Power Supply - C
202) MAIN-B.....	17	Main Power Supply - B
203) MAIN-C.....	24	Main Power Supply - C
204) MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
205) MDMFF-4.....	150	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
206) MDMFF-3.....	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
207) MDMFF-1.....	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
208) FCS-1.....	13	Flight Critical String (FCS) 1
209) FCS-3.....	9	Flight Critical String (FCS) 3
210) FCS-2.....	11	Flight Critical String (FCS) 2
211) FCS-4.....	7	Flight Critical String (FCS) 4
212) AA.....		Accelerometer Assemblies - Orbiter (OAAs)
213) MAIN-A.....	5	Main Power Supply - A
214) MAIN-B.....	17	Main Power Supply - B
215) MAIN-A.....	5	Main Power Supply - A
216) MAIN-C.....	24	Main Power Supply - C
217) MAIN-B.....	17	Main Power Supply - B
218) MAIN-C.....	24	Main Power Supply - C
219) MDMFF-1.....	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
220) MDMFF-2.....	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
221) MDMFF-3.....	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
222) MDMFF-4.....	150	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
223) FCS-1.....	13	Flight Critical String (FCS) 1
224) FCS-2.....	11	Flight Critical String (FCS) 2
225) FCS-3.....	9	Flight Critical String (FCS) 3
226) FCS-4.....	7	Flight Critical String (FCS) 4
227) SURFACES.....		Aerodynamic Control Surfaces
228) RUDDER.....		Rudder
229) HYD-1.....	188	Hydraulics (HYD) 1
230) HYD-2.....	190	Hydraulics (HYD) 2
231) HYD-3.....	186	Hydraulics (HYD) 3
232) ASA.....		Aero Surface Amplifiers (ASAs)
233) ASA-1.....		Aero Surface Amplifier 1
234) FCS-1.....	13	Flight Critical String (FCS) 1
235) MDMFA-1.....		Multiplexer Demultiplexer (MDM) Flight Aft (FA) 1
236) MAIN-A.....	5	Main Power Supply - A
237) MAIN-B.....	17	Main Power Supply - B
238) ASA-2.....		Aero Surface Amplifier 2
239) FCS-2.....	11	Flight Critical String (FCS) 2
240) MDMFA-2.....		Multiplexer Demultiplexer (MDM) Flight Aft (FA) 2
241) MAIN-B.....	17	Main Power Supply - B
242) MAIN-C.....	24	Main Power Supply - C
243) ASA-4.....		Aero Surface Amplifier 4
244) FCS-4.....	7	Flight Critical String (FCS) 4
245) MDMFA-4.....		Multiplexer Demultiplexer (MDM) Flight Aft (FA) 4
246) MAIN-A.....	5	Main Power Supply - A
247) MAIN-C.....	24	Main Power Supply - C
248) ASA-3.....		Aero Surface Amplifier 3
249) FCS-3.....	9	Flight Critical String (FCS) 3
250) MDMFA-3.....		Multiplexer Demultiplexer (MDM) Flight Aft (FA) 3
251) MAIN-A.....	5	Main Power Supply - A
252) MAIN-C.....	24	Main Power Supply - C
253) SPDBRK.....		Speed Brake
254) HYD-1.....	188	Hydraulics (HYD) 1
255) HYD-3.....	186	Hydraulics (HYD) 3
256) HYD-2.....	190	Hydraulics (HYD) 2
257) ASA.....	232	Aero Surface Amplifiers (ASAs)
258) BDYFLAP.....		Body Flap
259) ASA-1.....	233	Aero Surface Amplifier 1
260) ASA-2.....	238	Aero Surface Amplifier 2
261) ASA-3.....	248	Aero Surface Amplifier 3
262) HYD-1.....	188	Hydraulics (HYD) 1
263) HYD-2.....	190	Hydraulics (HYD) 2
264) HYD-3.....	186	Hydraulics (HYD) 3
265) ELEVONS.....		Elevons
266) L-O-ELEV.....		Left Outboard Elevon
267) HYD-1.....	188	Hydraulics (HYD) 1
268) HYD-3.....	186	Hydraulics (HYD) 3
269) HYD-2.....	190	Hydraulics (HYD) 2
270) ASA.....	232	Aero Surface Amplifiers (ASAs)
271) L-I-ELEV.....		Left Inboard Elevon
272) HYD-1.....	188	Hydraulics (HYD) 1
273) HYD-3.....	186	Hydraulics (HYD) 3
274) HYD-2.....	190	Hydraulics (HYD) 2
275) ASA.....	232	Aero Surface Amplifiers (ASAs)
276) R-I-ELEV.....		Right Inboard Elevon

## Orbiter Autoland Reliability Analysis

Module Name	Ref.	Description
277)		HYD-1.....
278)	188	Hydraulics (HYD) 1
279)	186	Hydraulics (HYD) 3
280)	190	Hydraulics (HYD) 2
281)	232	Aero Surface Amplifiers (ASAs)
282)		R-O-ELEV.....
283)		Right Outboard Elevon
284)	188	Hydraulics (HYD) 1
285)	186	Hydraulics (HYD) 3
286)	190	Hydraulics (HYD) 2
287)	232	Aero Surface Amplifiers (ASAs)
288)		WOW.....
289)		Weight On Wheels (WOWs)
290)	5	Main Power Supply - A
291)	17	Main Power Supply - B
292)	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
293)	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
294)	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
295)	9	Flight Critical String (FCS) 3
296)	13	Flight Critical String (FCS) 1
297)	9	Flight Critical String (FCS) 3
298)		WOW-R.....
299)	17	Main Power Supply - B
300)	24	Main Power Supply - C
301)	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
302)	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
303)	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
304)	11	Flight Critical String (FCS) 2
305)	7	Flight Critical String (FCS) 4
306)	11	Flight Critical String (FCS) 2
307)		WNG.....
308)	5	Main Power Supply - A
309)	24	Main Power Supply - C
310)	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
311)	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
312)	11	Flight Critical String (FCS) 2
313)	9	Flight Critical String (FCS) 3
314)	182	Brakes
315)		NWS.....
316)		Nose Wheel Steering (NWS)
317)		Nose Wheel Steering
318)	5	Main Power Supply - A
319)	90	Display Driver Unit - Right
320)	19	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 1
321)	22	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 2
322)	13	Flight Critical String (FCS) 1
323)	11	Flight Critical String (FCS) 2
324)		HYD-1.....
325)	188	Hydraulics (HYD) 1
326)	190	Hydraulics (HYD) 2
327)		NWS-2.....
328)		Nose Wheel Steering
329)	17	Main Power Supply - B
330)	65	Display Driver Unit - Left
331)	34	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
332)	150	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3
333)	9	Flight Critical String (FCS) 3
334)	7	Flight Critical String (FCS) 4
335)		HYD-1.....
336)	188	Hydraulics (HYD) 1
337)	190	Hydraulics (HYD) 2
338)		MAINGEAR.....
339)		Main Landing Gear
340)	188	Hydraulics (HYD) 1
341)	188	Hydraulics (HYD) 1
342)		AUTOLAND.....
343)	40	Inertial Measurement Unit (IMU)
344)	28	Microwave Scanning Beam Landing System
345)	193	Air Data Transducer Assembly (ADTA)
346)	227	Aerodynamic Control Surfaces
347)	286	Weight On Wheels (WOWs)
348)		RGA.....
349)		Rate Gyro Assembly
350)	17	Main Power Supply - B
351)	5	Main Power Supply - A
352)	17	Main Power Supply - B
353)	24	Main Power Supply - C
354)	5	Main Power Supply - A
355)	24	Main Power Supply - C
356)	235	Multiplexer Demultiplexer (MDM) Flight Aft (FA) 1
357)	240	Multiplexer Demultiplexer (MDM) Flight Aft (FA) 2
358)	250	Multiplexer Demultiplexer (MDM) Flight Aft (FA) 3
	245	Multiplexer Demultiplexer (MDM) Flight Aft (FA) 4
	13	Flight Critical String (FCS) 1
	11	Flight Critical String (FCS) 2
	9	Flight Critical String (FCS) 3
	7	Flight Critical String (FCS) 4
	313	Nose Wheel Steering (NWS)
	332	Main Landing Gear
	182	Brakes



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CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
1) AA	Accelerometer Assembly - Orbiter (OAA)				See MIST Rpt.
1) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
1) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
1) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
2) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.12E-06
2) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncoaa001x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
3) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.12E-06
3) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncoaa003x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
4) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.12E-06
4) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncoaa004x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
5) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.12E-06
5) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncoaa003x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
6) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.12E-06
6) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncoaa004x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
7) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.12E-06
7) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncoaa002x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
8) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	8.54E-07
8) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsmff004x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
9) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	8.54E-07
9) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsmff003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
10) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	8.54E-07
10) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsmff001x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
11) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	8.54E-07
11) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsmff004x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
12) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	8.54E-07
12) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsmff002x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
13) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	8.54E-07
13) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsmff003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
14) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
14) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc004x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
15) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
15) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
16) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
16) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc004x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
17) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
17) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
18) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
18) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
19) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
19) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
20) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
gncoaa001x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
gncoaa003x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
21) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
gncoaa002x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
gncoaa003x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
22) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
gncoaa002x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
gncoaa004x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
23) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
gncoaa003x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
gncoaa004x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
24) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
gncoaa003x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
gncoaa004x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
25) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
gncoaa001x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
gncoaa004x	Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
2) ADI-L	Attitude Director Indicator - Left				See MIST Rpt.
1) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2) dncadi001x	Attitude Director Indicator (ADI)	4.3400E-5	24	1.04E-03<	1.04E-03
3) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
3) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
3) ADI-R	Attitude Director Indicator - Right				See MIST Rpt.
1) dncddu00rx	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2) dncadi00rx	Attitude Director Indicator (ADI)	4.3400E-5	24	1.04E-03<	1.04E-03
3) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
3) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
<b>4) ADTA</b>	<b>Air Data Transducer Assembly</b>				<b>See MIST Rpt.</b>
1) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
2) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
3) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
4) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
5) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
6) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
7) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
8) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
9) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
10) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
11) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
12) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
13) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
14) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
15) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
16) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
17) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
18) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
19) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
20) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
21) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
22) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
23) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
24) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
25) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
26) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
27) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
28) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
29) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
30) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
31) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
32) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
33) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
34) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
35) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
36) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
37) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
38) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
39) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
40) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
41) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
42) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
43) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
44) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
45) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
46) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
47) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
48) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
49) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
50) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
51) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
52) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
53) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
54) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
55) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
5)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
6)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
7)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
See MIST Rpt.					
11) ASA-1	Aero Surface Amplifier 1	8.1633E-5	24	1.96E-03	1.96E-03
1)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	4.0000E-5	24	9.60E-04	9.60E-04
2)	dpsgpc001x General Purpose Computer (PASS)	9.0900E-4	24	2.16E-02	4.67E-04
3)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
4)	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	4.50E-04
See MIST Rpt.					
12) ASA-2	Aero Surface Amplifier 2	8.1633E-5	24	1.96E-03	1.96E-03
1)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	4.0000E-5	24	9.60E-04	9.60E-04
2)	dpsgpc002x General Purpose Computer (PASS)	9.0900E-4	24	2.16E-02	4.67E-04
3)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
4)	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	4.50E-04
See MIST Rpt.					
13) ASA-3	Aero Surface Amplifier 3	8.1633E-5	24	1.96E-03	1.96E-03
1)	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	4.0000E-5	24	9.60E-04	9.60E-04
2)	dpsgpc003x General Purpose Computer (PASS)	9.0900E-4	24	2.16E-02	4.67E-04
3)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
4)	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	4.50E-04
See MIST Rpt.					
14) ASA-4	Aero Surface Amplifier 4	8.1633E-5	24	1.96E-03	1.96E-03
1)	dpsmfa004x Multiplexer Demultiplexer / Flight Aft	4.0000E-5	24	9.60E-04	9.60E-04
2)	dpsgpc004x General Purpose Computer (PASS)	9.0900E-4	24	2.16E-02	4.67E-04
3)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
4)	gncasa004x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	4.50E-04
See MIST Rpt.					
15) AUTOLAND	Autoland Model	9.0900E-4	24	2.16E-02	2.16E-02
1)	prsf1c003x Fuel Cell (FLC or FC)	7.2463E-3	.8	5.78E-03	5.78E-03
2)	mchbdf001x Body Flap PDU (BDF)	4.8309E-3	.8	3.86E-03	3.86E-03
3)	mchrud001x Rudder PDU (RUD)	4.8309E-3	.8	3.86E-03	3.86E-03
4)	mchsbr001x Speed Brake PDU (SBR)	4.8309E-3	.8	3.86E-03	3.86E-03
5)	mchssv001x Servo Valve / SBR	4.8309E-3	.8	3.86E-03	3.86E-03
6)	mchrsv001x Servo Valve / RUD	2.9585E-3	1	2.95E-03	2.95E-03
7)	mchelv01x Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
8)	mchelv01x Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
9)	mchelv01x Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
10)	mchelv01x Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
11)	cntmlg001x MSBLS - Ground Station	4.3497E-4	5.5	2.39E-03	2.39E-03
12)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
13)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.06E-04
	dncddu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
14)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.06E-04
	dncddu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
15)	dncddu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.12E-05
	dncddu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
16)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
17)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
18)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
19)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
20)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
21)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
22)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
23)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
24)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
25)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
26)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
27)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
28)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.81E-05
29)	mchmnp003x Main Pump / HYD				

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
30)	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	1.75E-05
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
31)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.75E-05
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
32)	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	1.75E-05
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
33)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.75E-05
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
34)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
35)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
36)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
37)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
38)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
39)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
40)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
41)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
42)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
43)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
44)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
45)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
46)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
47)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
48)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
49)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
50)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
51)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
52)	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.17E-06
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
53)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.17E-06
	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
54)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.17E-06
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
55)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.17E-06
	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
56)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
57)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
58)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
59)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
60)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
61)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06



## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
62)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
63)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
64)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
65)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	mchmnp002x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
66)	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
67)	prsggv003x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	8.24E-06
68)	prsc1003x Controller / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	8.24E-06
69)	mchwsb003x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.2195E-2	1.167	1.41E-02<	8.24E-06
70)	mchwsb003x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
71)	prsc1003x Controller / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	8.15E-06
72)	prsc1003x Controller / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	9.6153E-3	2.183	2.08E-02<	8.15E-06
73)	mchmnp003x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
74)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	7.76E-06
75)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	9.6153E-3	2.183	2.08E-02<	6.10E-06
76)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	6.10E-06
77)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	6.10E-06
78)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	5.86E-06
79)	mchwsb003x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
80)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
81)	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	5.81E-06
82)	mchmnp003x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	5.81E-06
83)	prsc1003x Controller / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	5.81E-06
84)	prsc1003x Controller / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	5.81E-06
85)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	9.6153E-3	2.183	2.08E-02<	5.81E-06
86)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.2195E-2	1.167	1.41E-02<	5.81E-06
87)	mchwsb003x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	5.53E-06
88)	mchwsb003x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
89)	prsc1003x Controller / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
90)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
191) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
192) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
193) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
194) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
195) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
196) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
197) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
198) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
199) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
100) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
101) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
102) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
103) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
104) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
105) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
106) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
107) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
108) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
109) gncimu001x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	3.80E-06
gncimu002x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu003x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
110) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
111) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
112) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
113) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
114) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
115) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
116) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
117) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
118) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
119) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
120)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
121)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
122)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.41E-06
	gncscb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04<	
123)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.41E-06
	gncscb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04<	
124)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	3.35E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
125)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	3.35E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
126)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	3.35E-06
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
127)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	3.35E-06
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
128)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
129)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
130)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
131)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
132)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
133)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
134)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.80E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
135)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
136)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
137)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
138)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
139)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
140)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
141)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
142)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
143)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
144)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
145)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
146)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
147)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
148)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
149)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
150)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
151)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
152)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsetl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prsetl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
153)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prsetl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsetl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
154)	prsetl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsetl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
155)	prsetl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsetl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
156)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
157)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
158)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
159)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
160)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
161)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
162)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
163)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
164)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
165)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsetl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
166)	prsetl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
167)	prsetl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
168)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	prsetl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
169)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.33E-06
	prsetl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
170)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsetl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
171)	prsetl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	prsetl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
172)	prsetl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsetl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
173)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	prsetl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsetl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
174)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.96E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
175)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
176)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
177)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
178)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
179)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
180)	prsetl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

## CUTSET REPORT

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
181)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
182)	prsmipu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
183)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsmipu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
184)	prsmipu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
185)	prsc1003x Controller / APU	2.1373E-3	1.5	3.20E-03	
	prsmipu002x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	1.86E-06
186)	mchftr003x Filter / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.86E-06
187)	mchwsb003x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.86E-06
188)	mchmnp003x Main Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	1.86E-06
189)	mchftr003x Filter / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02	1.86E-06
190)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	9.6153E-3	2.183	2.08E-02	1.86E-06
191)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
192)	mchftr003x Filter / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	1.77E-06
193)	prsc1003x Controller / APU	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	1.77E-06
194)	prsc1003x Controller / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	1.2195E-2	1.167	1.41E-02	1.77E-06
195)	mchwsb003x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
196)	mchftr003x Filter / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.2195E-2	1.167	1.41E-02	1.77E-06
197)	mchwsb003x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	4.0000E-5	24	9.60E-04	1.76E-06
198)	dpsgpc003x General Purpose Computer (PASS)	7.6190E-5	24	1.83E-03	
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	4.0000E-5	24	9.60E-04	1.76E-06
199)	dpsgpc004x General Purpose Computer (PASS)	7.6190E-5	24	1.83E-03	
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.76E-06
200)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	4.0000E-5	24	9.60E-04	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
201)	dpsgpc004x General Purpose Computer (PASS)	7.6190E-5	24	1.83E-03	
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.76E-06
202)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	4.0000E-5	24	9.60E-04	
	dpsgpc002x General Purpose Computer (PASS)	7.6190E-5	24	1.83E-03	1.76E-06
203)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	4.0000E-5	24	9.60E-04	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
204)	dpsgpc003x General Purpose Computer (PASS)	7.6190E-5	24	1.83E-03	
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.76E-06
205)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	4.0000E-5	24	9.60E-04	
	dpsgpc001x General Purpose Computer (PASS)	1.9960E-2	1.5	2.95E-02	1.71E-06
206)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	8.1633E-5	24	1.96E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	1.9960E-2	1.5	2.95E-02	1.71E-06
207)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	8.1633E-5	24	1.96E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	1.9960E-2	1.5	2.95E-02	1.71E-06
208)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	8.1633E-5	24	1.96E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	5.6680E-4	10	5.65E-03	1.66E-06
209)	mchcrp003x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02	1.66E-06
210)	mchwsb003x Water Spray Boiler	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02	1.66E-06
211)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02	1.66E-06
212)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler				

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
213)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
214)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
215)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
216)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
217)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
218)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
219)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
220)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
221)	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	1.51E-06
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04<	
222)	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04<	1.51E-06
	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
223)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
224)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
225)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
226)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
227)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
228)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
229)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
230)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
231)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
232)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
233)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
234)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
235)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
236)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
237)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
238)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
239)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
240)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
241)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
242)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
243)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
244)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
245)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
246)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
247)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
248)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
249)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
250)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
251)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
252)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
253)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
254)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
255)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
256)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
257)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
258)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
259)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
260)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
261)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
262)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
263)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
264)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
265)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
266)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
267)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
268)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
269)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
270)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
271)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
272) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
273) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
274) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmnp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
275) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmnp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
276) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
prsmnp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
277) dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
dpsgpc004x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
278) dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
279) dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
280) dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
dpsgpc004x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
281) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
282) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
283) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
284) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
285) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmnp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
286) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
prsmnp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
287) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
288) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
prsmnp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
289) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmnp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
290) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
291) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
292) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
293) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
294) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
295) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
296) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
297) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
298) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
299) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
300) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
301) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
302) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	



## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
303)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
304)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
305)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
306)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
307)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
308)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
309)	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
310)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
311)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
312)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
313)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
314)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
315)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
316)	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
317)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
318)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
319)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
320)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
321)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
322)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
323)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
324)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
325)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
326)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
327)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
328)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
329)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
330)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
331)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
332)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
333)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
334)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
335)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
336)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
337)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
338)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
339)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
340)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
341)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
342)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
343)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
344)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
345)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
346)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
347)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
348)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
349)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
350)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
351)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
352)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
353)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
354)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
355)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
356)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
357)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
358)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
359)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
360)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
361)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
362)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
363)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
364)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
365)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
366)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
367)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
368)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
369)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
370)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
371)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
372)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
373)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
374)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
375)	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
376)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
377)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
378)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
379)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
380)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
381)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
382)	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
383)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
384)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
385)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
386)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
387)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
388)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
389)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
390)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
391)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
392)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
393)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
394)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
395)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
396)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
397)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
398)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
399)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
400)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
401)	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	4.45E-07
	gncimu002x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
	gncimu003x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
402)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	4.45E-07
	gncimu001x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
	gncimu002x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
403)	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	4.45E-07
	gncimu001x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
	gncimu003x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
404)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
405)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
406)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
407)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
408)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
409)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
410)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
411)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
412)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
413)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
414)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
415)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
416)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
417)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	prsmpp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
418)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	prsmpp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
419)	prsmpp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
420)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
421)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
422)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
423)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
424)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
425)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
426)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
427)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
428)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	gncadt003x Air Data Transducer Assembly (ADTA)	1.1250E-4	.167	1.88E-05	
429)	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	gncadt004x Air Data Transducer Assembly (ADTA)	1.1250E-4	.167	1.88E-05	
430)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
431)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
432)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
433)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
434)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
435)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
436)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
437)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
438)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
439)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
440)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
441)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
442)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
443)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
444)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
445)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
446)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
447)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
448)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
449)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
450) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
451) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.90E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
452) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.90E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
453) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.90E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
454) cntdec003x	MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	3.86E-07
cntdec002x	MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
cntdec001x	MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
455) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
456) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
457) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
458) prsmpp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
mchcrp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
459) mchcrp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.76E-07
prsmpp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
460) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
mchcrp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsmpp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
461) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
prsmpp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
462) prsmpp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
463) mchcrp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.76E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmpp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
464) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
465) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
466) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
467) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
468) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
469) mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
470) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
prsmpp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
471) prsmpp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
472) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmpp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
473) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
prsmpp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
474) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmpp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
475) prsmpp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
476) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
477) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
478) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
479) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
480)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
481)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
482)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
483)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
484)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
485)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
486)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
487)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
488)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
489)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
490)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmmpu002x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
491)	prscrl003x Controller / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	4.3300E-5	24	1.04E-03<	
	mchrsr001x Reservoir / HYD	1.2195E-2	1.167	1.41E-02<	2.90E-07
492)	mchwsb003x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prscrl002x Controller / APU	4.3300E-5	24	1.04E-03<	
	mchrsr001x Reservoir / HYD	1.2195E-2	1.167	1.41E-02<	2.90E-07
493)	mchwsb003x Water Spray Boiler	4.3300E-5	24	1.04E-03<	
	mchrsr002x Reservoir / HYD	1.2195E-2	1.167	1.41E-02<	2.90E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
494)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
495)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
496)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
497)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	2.89E-07
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04<	
498)	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04<	2.89E-07
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
499)	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04<	2.89E-07
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	2.89E-07
500)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	2.8800E-5	5.5	1.58E-04<	
	gnscsb001x Steering Control Box (SCB) / NWS	1.2195E-2	1.167	1.41E-02<	2.86E-07
501)	mchwsb003x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
502)	prsmmpu003x Magnetic Pickup Unit / APU	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	2.86E-07
503)	mchftr003x Filter / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	5.2160E-4	12.183	6.33E-03	2.86E-07
504)	mchftr003x Filter / HYD	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
505)	mchwsb003x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	2.1373E-3	1.5	3.20E-03	2.86E-07
506)	prsmmpu003x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	1.2195E-2	1.167	1.41E-02<	2.82E-07
507)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	4.0000E-5	24	9.60E-04	
	dpsgpc002x General Purpose Computer (PASS)	1.2195E-2	1.167	1.41E-02<	2.82E-07
508)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	4.0000E-5	24	9.60E-04	
	dpsgpc001x General Purpose Computer (PASS)	9.6153E-3	2.183	2.08E-02<	2.82E-07
509)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	4.0000E-5	24	9.60E-04	
	dpsgpc002x General Purpose Computer (PASS)				

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
510)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
511)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
512)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
513)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
514)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
515)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
516)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
517)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
518)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
519)	prcctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
520)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prcctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
521)	prcctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
522)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prcctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
523)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prcctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
524)	prcctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
525)	prcctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
526)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prcctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
527)	prcctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
528)	prcctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
529)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prcctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
530)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prcctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
531)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
532)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
533)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
534)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
535)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
536)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
537)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
538)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
539)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07



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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
540)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
541)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
542)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
543)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
544)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
	prscftr002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmf001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
545)	prscftr003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmf001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
546)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
	prscftr001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmf002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
547)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
	prscftr001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmf003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
548)	prscftr002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmf003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
549)	prscftr003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmf002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
550)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	2.34E-07
	gncimu001x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
	gncimu002x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
551)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	2.34E-07
	gncimu002x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
	gncimu003x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
552)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	2.34E-07
	gncimu001x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
	gncimu003x Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
553)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmf001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
554)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmf002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
555)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmf001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
556)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmf003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
557)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmf003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
558)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmf002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
559)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
560)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
561)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
562)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
	prscftr002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmf001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
563)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
	prscftr001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmf002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
564)	prscftr003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmf001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
565)	prscftr003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmf002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
566)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
	prscftr001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmf003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
567)	prscftr002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmf003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
568)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
569) prsmu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
570) prsmu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
prsmu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
571) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
572) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
573) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
574) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
prsmu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
575) prsmu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
576) prsmu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prsmu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
577) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
578) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
579) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
580) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
581) gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
582) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
583) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
gncrga001x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
gncrga003x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
584) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
gncrga003x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
gncrga004x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
585) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
gncrga001x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
gncrga004x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
586) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
587) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
588) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
589) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
590) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
591) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
592) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.91E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
593) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.91E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
594) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.91E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
595) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
596) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
597) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
598) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
599) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
600) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
601) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
602) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.85E-07
practl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
603) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
604) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.85E-07
practl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
605) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
606) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.85E-07
practl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
607) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
608) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
609) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
610) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
611) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
612) prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
613) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
614) mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
615) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
616) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
617) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
618) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
619) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
620) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
practl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
621) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
practl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
622) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
practl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
623) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
624) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
625) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
626) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
627) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
628)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
	mchwbs001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
629)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
630)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
631)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
632)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
633)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
634)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
635)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
636)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
637)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
638)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
639)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
640)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
641)	mchwbs003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.56E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
642)	mchwbs003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.56E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
643)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
	mchwbs002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
644)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
	mchwbs001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
645)	mchwbs002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.56E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
646)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
	mchwbs001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
647)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.52E-07
	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
648)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.52E-07
	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
649)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.52E-07
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
650)	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.52E-07
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
651)	mchwbs003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.44E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
652)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwbs001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
653)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	mchwbs002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
654)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
655)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
656)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
657)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
658) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
659) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
660) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.32E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
661) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.32E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
662) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.32E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
663) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.32E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
664) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.32E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
665) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.32E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
666) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.30E-07
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
667) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.30E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
668) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
669) prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
670) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.30E-07
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
671) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
672) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
673) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
674) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.30E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
675) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
676) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.30E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
677) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
678) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
679) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
680) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
681) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
gncrga003x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
682) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
dpsmfa004x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
gncrga001x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
683) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
dpsmfa004x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
gncrga003x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
684) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
gncrga004x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
685) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
gncrga001x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
686) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
gncrga004x	Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
687) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07

## CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchamnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
688)	mchamnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
689)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchamnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
690)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchamnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
691)	mchamnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
692)	mchamnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
693)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
694)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
695)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
696)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
697)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
698)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
699)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
700)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
701)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
702)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
703)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
704)	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
705)	mchamnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
706)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchamnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
707)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchamnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
708)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchamnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
709)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchamnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
710)	mchamnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
711)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
712)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
713)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
714)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
715)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
716)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
717) dpgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
718) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
719) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
720) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
721) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
722) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
723) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
724) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
725) prmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
726) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
prmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
727) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
prmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
728) prmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
729) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
730) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
731) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
732) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
733) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
734) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
735) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
736) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
737) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
738) cntdec003x	MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	1.10E-07
cntrfa002x	Radio Frequency Assembly (Part of MLS)	3.7679E-4	5.5	2.07E-03	
cntdec001x	MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
739) cntrfa001x	Radio Frequency Assembly (Part of MLS)	3.7679E-4	5.5	2.07E-03	1.10E-07
cntdec003x	MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
cntdec002x	MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
740) cntrfa003x	Radio Frequency Assembly (Part of MLS)	3.7679E-4	5.5	2.07E-03	1.10E-07
cntdec002x	MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
cntdec001x	MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
741) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
742) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
743) prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
744) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
745) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
746) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
747) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
748) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
749) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
16) AVVI-L	Altitude Vertical Velocity Indicator / Electronics (AVVI/E) - Left				See MIST Rpt.
1) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	5.16E-03
2) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
3) dncavv001x	Altitude Vertical Velocity Indicator / Electronics (AVVI/E)	7.3800E-5	24	1.77E-03	1.77E-03
17) AVVI-R	Altitude Vertical Velocity Indicator / Electronics (AVVI/E) - Right				See MIST Rpt.
1) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	5.16E-03
2) dncddu002x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
3) dncavv002x	Altitude Vertical Velocity Indicator / Electronics (AVVI/E)	7.3800E-5	24	1.77E-03	1.77E-03
18) BODYFLAP	Body Flap				See MIST Rpt.
1) mchbdf001x	Body Flap PDU (BDF)	7.2463E-3	.8	5.78E-03	5.78E-03
2) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
3) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
4) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
5) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
6) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
7) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
8) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
9) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
10) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
11) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
12) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
13) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
14) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
15) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
16) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
17) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
18) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
19) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
20) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
21) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
22) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	



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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
23)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
24)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
25)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	9.00E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
26)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
27)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
28)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
29)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
30)	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.65E-06
31)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02	8.57E-06
32)	mchmnp003x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	8.57E-06
33)	prsc1003x Controller / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
34)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
35)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
36)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
37)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
38)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
39)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
40)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
41)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
42)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
43)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
44)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
45)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
46)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	6.10E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
47)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
48)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
49)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	5.86E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
50)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
51)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
52)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	5.81E-06

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
53)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
54)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
55)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
56)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
57)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
58)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
59)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
60)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
61)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
62)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
63)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
64)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
65)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
66)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
67)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
68)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
69)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
70)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
71)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
72)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
73)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
74)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
75)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
76)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
77)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
78)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
79)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
80)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
81)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
82)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
83)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
84)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
85)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
86)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
87)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
88)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
89)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
90)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
91)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
92)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
93)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
94)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
95)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
96)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.80E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
97)	prsmpu003x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
98)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
99)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
100)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
101)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
102)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
103)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
104)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
105)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
106)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
107)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
108)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
109)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
110)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
111)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
112)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
113)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
114)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
115)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
116)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
117)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
118)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
119)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
120)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
121)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
122)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
123)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
124)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
125)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
126)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
127)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
128)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
129)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
130)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
131)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
132)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
133)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
134)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
135)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
136)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
137)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
138)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
139)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
140)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06

The Model - Cut-Set Report

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
141)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
142)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
143)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
144)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
145)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
146)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
147)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
148)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
149)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
150)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
151)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
152)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
153)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
154)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
155)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
156)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
157)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
158)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
159)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
160)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
161)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
162)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
163)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
164)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
165)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
166)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
167)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
168)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
169)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
170) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
171) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
172) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
173) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
174) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
175) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
176) mchmp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
177) mchmp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
178) prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
179) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
180) prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
181) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
182) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
183) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
184) prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
185) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
186) mchmp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
187) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
188) prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
mchmp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
189) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
190) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
191) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
192) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
193) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
194) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
195) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
196) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
197) dpmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
198) mchmp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
199) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
200) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
201) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
202) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
203) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
204) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
205) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
206) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
207) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
208) prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
209) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
210) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
211) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
212) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
213) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
214) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
215) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
216) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
217) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
218) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
219) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
220) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
221) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
222) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
223) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
224) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
225) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
226) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
227) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
228) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
229)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
230)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
231)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
232)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
233)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
234)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
235)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
236)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
237)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
238)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
239)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
240)	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
241)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
242)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
243)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
244)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
245)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
246)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
247)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
248)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
249)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
250)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
251)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
252)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
253)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
254)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
255)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
256)	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
257)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	



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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
258)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft mchmnp003x Main Pump / HYD prsc1001x Controller / APU	8.1633E-5 9.6153E-3 1.3333E-2	24 2.183 1.5	1.96E-03< 2.08E-02< 1.98E-02	8.07E-07
259)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft prsc1003x Controller / APU mchftr002x Filter / HYD	8.1633E-5 1.3333E-2 5.2160E-4	24 1.5 12.183	1.96E-03< 1.98E-02 6.33E-03	7.93E-07
260)	mchftr001x Filter / HYD mchftr003x Filter / HYD prsc1002x Controller / APU	5.2160E-4 5.2160E-4 1.3333E-2	12.183 12.183 1.5	6.33E-03 6.33E-03 1.98E-02	7.93E-07
261)	mchftr001x Filter / HYD mchftr003x Filter / HYD mchftr002x Filter / HYD	5.2160E-4 5.2160E-4 5.2160E-4	12.183 12.183 12.183	6.33E-03 6.33E-03 6.33E-03	7.93E-07
262)	prsc1001x Controller / APU prsc1003x Controller / APU prsc1001x Controller / APU	1.3333E-2 1.3333E-2 1.3333E-2	1.5 1.5 1.5	1.98E-02 1.98E-02 1.98E-02	7.68E-07
263)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft prsc1002x Controller / APU prsc1001x Controller / APU	8.1633E-5 1.3333E-2 1.3333E-2	24 1.5 1.5	1.96E-03< 1.98E-02 1.98E-02	7.68E-07
264)	dpsmfa003x Multiplexer Demultiplexer / Flight Aft prsc1003x Controller / APU prsc1002x Controller / APU	8.1633E-5 1.3333E-2 1.3333E-2	24 1.5 1.5	1.96E-03< 1.98E-02 1.98E-02	7.68E-07
265)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft mchcrp003x Circulation Pump / HYD mchftr002x Filter / HYD	8.1633E-5 5.6680E-4 5.2160E-4	24 10 12.183	1.96E-03< 5.65E-03 6.33E-03	7.44E-07
266)	mchmnp001x Main Pump / HYD mchftr003x Filter / HYD mchcrp002x Circulation Pump / HYD	9.6153E-3 5.2160E-4 5.6680E-4	2.183 12.183 10	2.08E-02< 6.33E-03 5.65E-03	7.44E-07
267)	mchmnp001x Main Pump / HYD mchmnp003x Main Pump / HYD mchftr002x Filter / HYD	9.6153E-3 9.6153E-3 5.2160E-4	2.183 2.183 12.183	2.08E-02< 2.08E-02< 6.33E-03	7.44E-07
268)	mchcrp001x Circulation Pump / HYD mchmnp003x Main Pump / HYD mchcrp002x Circulation Pump / HYD	5.6680E-4 9.6153E-3 5.6680E-4	10 2.183 10	5.65E-03 2.08E-02< 5.65E-03	7.44E-07
269)	mchftr001x Filter / HYD mchftr003x Filter / HYD mchmnp002x Main Pump / HYD	5.2160E-4 5.2160E-4 9.6153E-3	12.183 12.183 2.183	6.33E-03 6.33E-03 2.08E-02<	7.44E-07
270)	mchcrp001x Circulation Pump / HYD mchcrp003x Circulation Pump / HYD mchmnp002x Main Pump / HYD	5.6680E-4 5.6680E-4 9.6153E-3	10 10 2.183	5.65E-03 5.65E-03 2.08E-02<	7.44E-07
271)	mchftr001x Filter / HYD mchcrp003x Circulation Pump / HYD mchftr002x Filter / HYD	5.2160E-4 5.6680E-4 5.2160E-4	12.183 10 12.183	6.33E-03 5.65E-03 6.33E-03	7.08E-07
272)	prsc1001x Controller / APU mchftr003x Filter / HYD mchcrp002x Circulation Pump / HYD	1.3333E-2 5.2160E-4 5.6680E-4	1.5 12.183 10	1.98E-02 6.33E-03 5.65E-03	7.08E-07
273)	prsc1001x Controller / APU prsc1003x Controller / APU mchftr002x Filter / HYD	1.3333E-2 1.3333E-2 5.2160E-4	1.5 1.5 12.183	1.98E-02 1.98E-02 6.33E-03	7.08E-07
274)	mchcrp001x Circulation Pump / HYD mchftr003x Filter / HYD prsc1002x Controller / APU	5.6680E-4 5.2160E-4 1.3333E-2	10 12.183 1.5	5.65E-03 6.33E-03 1.98E-02	7.08E-07
275)	mchcrp001x Circulation Pump / HYD prsc1003x Controller / APU mchcrp002x Circulation Pump / HYD	5.6680E-4 1.3333E-2 5.6680E-4	10 1.5 10	5.65E-03 1.98E-02 5.65E-03	7.08E-07
276)	mchftr001x Filter / HYD mchcrp003x Circulation Pump / HYD prsc1002x Controller / APU	5.2160E-4 5.6680E-4 1.3333E-2	12.183 10 1.5	6.33E-03 5.65E-03 1.98E-02	7.08E-07
277)	mchftr001x Filter / HYD mchcrp002x Circulation Pump / HYD mchcrp003x Circulation Pump / HYD	5.2160E-4 5.6680E-4 5.6680E-4	12.183 10 10	6.33E-03 5.65E-03 5.65E-03	6.64E-07
278)	mchmnp001x Main Pump / HYD mchmnp003x Main Pump / HYD mchcrp002x Circulation Pump / HYD	9.6153E-3 9.6153E-3 5.6680E-4	2.183 2.183 10	2.08E-02< 2.08E-02< 5.65E-03	6.64E-07
279)	mchcrp001x Circulation Pump / HYD mchcrp003x Circulation Pump / HYD mchmnp002x Main Pump / HYD	5.6680E-4 5.6680E-4 9.6153E-3	10 10 2.183	5.65E-03 5.65E-03 2.08E-02<	6.64E-07
280)	mchcrp001x Circulation Pump / HYD mchmnp003x Main Pump / HYD prsggv002x Gas Generator Valve Module / APU	5.6680E-4 9.6153E-3 1.9960E-2	10 2.183 1.5	5.65E-03 2.08E-02< 2.95E-02	6.38E-07
281)	mchrsr001x Reservoir / HYD mchrsr003x Reservoir / HYD prsggv002x Gas Generator Valve Module / APU	4.3300E-5 4.3300E-5 1.9960E-2	24 24 1.5	1.04E-03< 1.04E-03< 2.95E-02	6.38E-07
282)	mchmnp001x Main Pump / HYD prsggv003x Gas Generator Valve Module / APU mchmnp002x Main Pump / HYD	9.6153E-3 1.9960E-2 9.6153E-3	2.183 1.5 2.183	2.08E-02< 2.95E-02 2.08E-02<	6.38E-07
283)	mchrsr001x Reservoir / HYD prsggv003x Gas Generator Valve Module / APU mchrsr002x Reservoir / HYD	4.3300E-5 1.9960E-2 4.3300E-5	24 1.5 24	1.04E-03< 2.95E-02 1.04E-03<	6.38E-07
284)	mchmnp001x Main Pump / HYD mchmnp003x Main Pump / HYD mchrsr002x Reservoir / HYD	9.6153E-3 9.6153E-3 4.3300E-5	2.183 2.183 24	2.08E-02< 2.08E-02< 1.04E-03<	6.38E-07
285)	prsggv001x Gas Generator Valve Module / APU mchrsr003x Reservoir / HYD mchmnp002x Main Pump / HYD	1.9960E-2 4.3300E-5 9.6153E-3	1.5 24 2.183	2.95E-02 1.04E-03< 2.08E-02<	6.38E-07
286)	prsggv001x Gas Generator Valve Module / APU prsmpp003x Magnetic Pickup Unit / APU mchwsb002x Water Spray Boiler	1.9960E-2 2.1373E-3 1.2195E-2	1.5 1.5 1.167	2.95E-02 3.20E-03 1.41E-02<	6.36E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
287)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prsmipu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
288)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
289)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
290)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
291)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
292)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
293)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
294)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
295)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
296)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
297)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
298)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmipu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
299)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
300)	prsmipu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
301)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsmipu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
302)	prsmipu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
303)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
304)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
305)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
306)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
307)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
308)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
309)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
310)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
311)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
312)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
313)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
314)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
315)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
316)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
317)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
318)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
319)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
320)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
321)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
322)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
323)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
324)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
325)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
326)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
327)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
328)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
329)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
330)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
331)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
332)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
333)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
334)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
335)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
336)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
337)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
338)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
339)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
340)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
341)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
342)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
343)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
344)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
345)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
346) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchrssr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
347) mchrssr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
348) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrssr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
349) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrssr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
350) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrssr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
351) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
mchrssr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
352) mchrssr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
353) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchrssr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
354) mchrssr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
355) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrssr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
356) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrssr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
357) mchrssr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
358) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
mchrssr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
359) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
mchrssr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
360) mchrssr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
361) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
362) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
363) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
364) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
365) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
366) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
367) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
368) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
369) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
370) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrssr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
371) mchrssr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
372) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
mchrssr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
373) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
374) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
375)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
376)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
377)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
378)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
379)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
380)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
381)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
382)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
383)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
384)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
385)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
386)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
387)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
388)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
389)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
390)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
391)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
392)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
393)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
394)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	qncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
395)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	qncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
396)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	qncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
397)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
398)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
399)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
400)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
401)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
402)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
403)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
404)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
405)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
406)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
407)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
408)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
409)	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
410)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
411)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
412)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
413)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
414)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
415)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
416)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
417)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
418)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
419)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
420)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
421)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
422)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
423)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
424)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
425)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
426)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
427)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
428)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
429)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
430)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
431)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
432)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
433)	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
434)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
435)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
436)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscctl001x Controllor / APU	1.3333E-2	1.5	1.98E-02	
437)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	prscctl002x Controllor / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
438)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	prscctl002x Controllor / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
439)	prscctl003x Controllor / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
440)	prscctl003x Controllor / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
441)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscctl001x Controllor / APU	1.3333E-2	1.5	1.98E-02	
442)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
443)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
444)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
445)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
446)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
447)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
448)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
449)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
450)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
451)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
452)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
453)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
454)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
455)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
456)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
457)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
458)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
459)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
460)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	<
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
461)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	<
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
462)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	<
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
463)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	<
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
464)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	<
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
465)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	<
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
466)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
467)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
468)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
469)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
470)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
471)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
472)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	<
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
473)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	<
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
474)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	<
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
475)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	<
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
476)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	<
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
477)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	<
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
478)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
479)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
480)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
481)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
482)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
483)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
484)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	<
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	<
485)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	<
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	<
486)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	<
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	<
487)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07



The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
488)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
489)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
490)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
491)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
492)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
493)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
494)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
495)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
496)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
497)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
498)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
499)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
500)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
501)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
502)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
503)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
504)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
505)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
506)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
507)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
508)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
509)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
510)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
511)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
512)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
513)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
514)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
515)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
516)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
517) dpmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
518) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
519) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
520) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
521) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
522) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
523) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
524) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
525) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
526) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
527) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
528) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
529) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
530) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.02E-07
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
531) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.02E-07
prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
532) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.02E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
533) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.95E-07
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
534) gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
535) gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
536) gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
537) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
538) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
539) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
540) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
541) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
542) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
543) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
544) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
545)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
546)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
547)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
548)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
549)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
550)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
551)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
552)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
553)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
554)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.91E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
555)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.91E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
556)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.91E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
557)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
558)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
559)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
560)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
561)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
562)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
563)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
564)	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
565)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.85E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
566)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.85E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
567)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
568)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.85E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
569)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
570)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
571)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
572)	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
573)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
574)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
575)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.83E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
576)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.83E-07
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
577)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.83E-07
	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
578)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
579)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
580)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
581)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
582)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
583)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
584)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
585)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gnccsa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
586)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gnccsa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
587)	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gnccsa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
588)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
589)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
590)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
591)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
592)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
593)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
594)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
595)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
596)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
597)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
598)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
599	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
600	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
601	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
602	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
603	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
604	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
605	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
606	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.56E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
607	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.56E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
608	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
609	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.56E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
610	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
611	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
612	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
613	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
614	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
615	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
616	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
617	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
618	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
619	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
620	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
621	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
622	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
623	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
624	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
625	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
626	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
627)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
628)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
629)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.32E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
630)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.32E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
631)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
632)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.32E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
633)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
634)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
635)	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
636)	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
637)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
638)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
639)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
640)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
641)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
642)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
643)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
644)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
645)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
646)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
647)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
648)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
649)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
650)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.30E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
651)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
652)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
653)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
654)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
655)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
656)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
657)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
658)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
659)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
660)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
661)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
662)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
663)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
664)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
665)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
666)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
667)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
668)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
669)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
670)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
671)	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
672)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
673)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
674)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
675)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
676)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
677)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
678)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
679)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
680)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
681)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
682)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
683)	dpsgpc002x General Purpose Computer (PASS) mchftr003x Filter / HYD prscrl001x Controller / APU	4.0000E-5 5.2160E-4 1.3333E-2	24 12.183 1.5	9.60E-04 6.33E-03 1.98E-02	1.20E-07
684)	dpsgpc002x General Purpose Computer (PASS) mchrsr003x Reservoir / HYD prscrl002x Controller / APU	4.0000E-5 4.3300E-5 1.3333E-2	24 24 1.5	9.60E-04 1.04E-03 1.98E-02	1.16E-07
685)	mchcrp001x Circulation Pump / HYD prscrl003x Controller / APU mchrsr002x Reservoir / HYD	5.6680E-4 1.3333E-2 4.3300E-5	10 1.5 24	5.65E-03 1.98E-02 1.04E-03	1.16E-07
686)	mchcrp001x Circulation Pump / HYD mchcrp003x Circulation Pump / HYD mchrsr002x Reservoir / HYD	5.6680E-4 5.6680E-4 4.3300E-5	10 10 24	5.65E-03 5.65E-03 1.04E-03	1.16E-07
687)	prscrl001x Controller / APU prscrl003x Controller / APU mchcrp002x Circulation Pump / HYD	1.3333E-2 1.3333E-2 5.6680E-4	1.5 1.5 10	1.98E-02 1.98E-02 5.65E-03	1.16E-07
688)	mchrsr001x Reservoir / HYD mchcrp002x Circulation Pump / HYD prscrl001x Controller / APU	4.3300E-5 5.6680E-4 1.3333E-2	24 10 1.5	1.04E-03 5.65E-03 1.98E-02	1.16E-07
689)	mchcrp003x Circulation Pump / HYD prscrl002x Controller / APU mchrsr001x Reservoir / HYD	5.6680E-4 1.3333E-2 4.3300E-5	10 1.5 24	5.65E-03 1.98E-02 1.04E-03	1.16E-07
690)	mchcrp003x Circulation Pump / HYD mchftr002x Filter / HYD prsmfu001x Magnetic Pickup Unit / APU	5.6680E-4 5.2160E-4 2.1373E-3	10 12.183 1.5	5.65E-03 6.33E-03 3.20E-03	1.14E-07
691)	mchftr003x Filter / HYD mchcrp002x Circulation Pump / HYD prsmfu001x Magnetic Pickup Unit / APU	5.2160E-4 5.6680E-4 2.1373E-3	12.183 10 1.5	6.33E-03 5.65E-03 3.20E-03	1.14E-07
692)	prsmfu003x Magnetic Pickup Unit / APU mchcrp002x Circulation Pump / HYD mchftr001x Filter / HYD	2.1373E-3 5.6680E-4 5.2160E-4	1.5 10 12.183	3.20E-03 5.65E-03 6.33E-03	1.14E-07
693)	mchftr003x Filter / HYD prsmfu002x Magnetic Pickup Unit / APU mchcrp001x Circulation Pump / HYD	5.2160E-4 2.1373E-3 5.6680E-4	12.183 1.5 10	6.33E-03 3.20E-03 5.65E-03	1.14E-07
694)	prsmfu003x Magnetic Pickup Unit / APU mchftr002x Filter / HYD mchcrp001x Circulation Pump / HYD	2.1373E-3 5.2160E-4 5.6680E-4	1.5 12.183 10	3.20E-03 6.33E-03 5.65E-03	1.14E-07
695)	mchcrp003x Circulation Pump / HYD prsmfu002x Magnetic Pickup Unit / APU mchftr001x Filter / HYD	5.6680E-4 2.1373E-3 5.2160E-4	10 1.5 12.183	5.65E-03 3.20E-03 6.33E-03	1.14E-07
696)	prsggv002x Gas Generator Valve Module / APU dpsmfa003x Multiplexer Demultiplexer / Flight Aft dpsmfa001x Multiplexer Demultiplexer / Flight Aft	1.9960E-2 8.1633E-5 8.1633E-5	2.15 24 24	2.95E-02 1.96E-03 1.96E-03	1.13E-07
697)	prsggv001x Gas Generator Valve Module / APU dpsmfa003x Multiplexer Demultiplexer / Flight Aft dpsmfa002x Multiplexer Demultiplexer / Flight Aft	1.9960E-2 8.1633E-5 1.9960E-2	2.15 24 2.15	2.95E-02 1.96E-03 2.95E-02	1.13E-07
698)	prsggv003x Gas Generator Valve Module / APU dpsmfa002x Multiplexer Demultiplexer / Flight Aft dpsmfa001x Multiplexer Demultiplexer / Flight Aft	1.9960E-2 8.1633E-5 8.1633E-5	2.15 24 24	2.95E-02 1.96E-03 1.96E-03	1.13E-07
699)	mchcrp003x Circulation Pump / HYD mchmnp001x Main Pump / HYD dpsgpc002x General Purpose Computer (PASS)	5.6680E-4 9.6153E-3 4.0000E-5	10 2.183 24	5.65E-03 2.08E-02 9.60E-04	1.13E-07
700)	mchcrp001x Circulation Pump / HYD dpsgpc003x General Purpose Computer (PASS) mchmnp003x Main Pump / HYD	5.6680E-4 4.0000E-5 9.6153E-3	10 24 2.183	5.65E-03 9.60E-04 2.08E-02	1.13E-07
701)	mchcrp001x Circulation Pump / HYD dpsgpc002x General Purpose Computer (PASS) mchmnp003x Main Pump / HYD	5.6680E-4 4.0000E-5 9.6153E-3	10 24 2.183	5.65E-03 9.60E-04 2.08E-02	1.13E-07
702)	mchcrp002x Circulation Pump / HYD dpsgpc001x General Purpose Computer (PASS) mchcrp003x Circulation Pump / HYD	5.6680E-4 4.0000E-5 5.6680E-4	10 24 10	5.65E-03 9.60E-04 5.65E-03	1.13E-07
703)	mchcrp003x Circulation Pump / HYD mchmnp002x Main Pump / HYD dpsgpc001x General Purpose Computer (PASS)	5.6680E-4 9.6153E-3 4.0000E-5	10 2.183 24	5.65E-03 2.08E-02 9.60E-04	1.13E-07
704)	mchcrp002x Circulation Pump / HYD mchmnp001x Main Pump / HYD dpsgpc003x General Purpose Computer (PASS)	5.6680E-4 9.6153E-3 4.0000E-5	10 2.183 24	5.65E-03 2.08E-02 9.60E-04	1.13E-07
705)	mchcrp003x Circulation Pump / HYD prscrl002x Controller / APU dpsgpc001x General Purpose Computer (PASS)	5.6680E-4 1.3333E-2 4.0000E-5	10 1.5 24	5.65E-03 1.98E-02 9.60E-04	1.07E-07
706)	prscrl003x Controller / APU mchcrp001x Circulation Pump / HYD dpsgpc002x General Purpose Computer (PASS)	1.3333E-2 5.6680E-4 4.0000E-5	1.5 10 24	1.98E-02 5.65E-03 9.60E-04	1.07E-07
707)	mchcrp003x Circulation Pump / HYD prscrl001x Controller / APU dpsgpc002x General Purpose Computer (PASS)	5.6680E-4 1.3333E-2 4.0000E-5	10 1.5 24	5.65E-03 1.98E-02 9.60E-04	1.07E-07
708)	mchcrp002x Circulation Pump / HYD prscrl001x Controller / APU dpsgpc003x General Purpose Computer (PASS)	5.6680E-4 1.3333E-2 4.0000E-5	10 1.5 24	5.65E-03 1.98E-02 9.60E-04	1.07E-07
709)	prscrl002x Controller / APU mchcrp001x Circulation Pump / HYD dpsgpc003x General Purpose Computer (PASS)	1.3333E-2 5.6680E-4 4.0000E-5	1.5 10 24	1.98E-02 5.65E-03 9.60E-04	1.07E-07
710)	prscrl003x Controller / APU mchcrp002x Circulation Pump / HYD dpsgpc001x General Purpose Computer (PASS)	1.3333E-2 5.6680E-4 4.0000E-5	1.5 10 24	1.98E-02 5.65E-03 9.60E-04	1.07E-07
711)	mchcrp003x Circulation Pump / HYD mchcrp002x Circulation Pump / HYD prsmfu001x Magnetic Pickup Unit / APU	5.6680E-4 5.6680E-4 2.1373E-3	10 10 1.5	5.65E-03 5.65E-03 3.20E-03	1.02E-07



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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
712)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
713)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
<b>See MIST Rpt.</b>					
19)	<b>BRAKE</b>				
	<b>Brakes</b>				
1)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
2)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
3)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
4)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
5)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
6)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
7)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
8)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
9)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
10)	prsggv003x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
11)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02	1.28E-05
12)	mchmnp003x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02	1.23E-05
13)	mchwsb003x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
14)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
15)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	1.21E-05
16)	prsc1003x Controller / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02	1.21E-05
17)	mchmnp003x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
18)	prsggv003x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	1.21E-05
19)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
20)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
21)	mchmnp003x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
22)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
23)	prsc1003x Controller / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
24)	prsggv003x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	9.6153E-3	2.183	2.08E-02	9.00E-06
25)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	8.65E-06
26)	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.65E-06
27)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02	8.65E-06
28)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD				

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
29) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
30) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
31) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
32) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
33) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
34) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
35) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
36) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
37) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
38) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
39) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
40) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
41) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
42) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
43) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
44) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
45) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
46) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.10E-06
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
47) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
48) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
49) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
50) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
51) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
52) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
53) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
54) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
55) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
56) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
57) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
58) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
59) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
60) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
61) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
62) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
63) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
64) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
65) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
66) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
67) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
68) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
69) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
70) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
71) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
72) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
73) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
74) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
75) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
76) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
77) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
78) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
79) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
80) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
81) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
82) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
83) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
84) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
85) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
86) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
87) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
88)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
89)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
90)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
91)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
92)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
93)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
94)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
95)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
96)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.80E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
97)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
98)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
99)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
100)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
101)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
102)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
103)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
104)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
105)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
106)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
107)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
108)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
109)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
110)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
111)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
112)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
113)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
114)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
115)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
116)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
117) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
117) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
118) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
118) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
119) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
120) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
121) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
122) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
123) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
124) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
125) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
126) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
127) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
128) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
129) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
130) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
131) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
132) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
133) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
134) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
135) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
136) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
prsmphu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
137) prsmphu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
138) prsmphu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
139) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmphu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
140) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
prsmphu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
141) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmphu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
142) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmphu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
143) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmphu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
144) prsmphu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
145) prsmphu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
146)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
147)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
148)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
149)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
150)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
151)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
152)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
153)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
154)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
155)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
156)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
157)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.77E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
158)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
159)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
160)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
161)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
162)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
163)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
164)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
165)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
166)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
167)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.58E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
168)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
169)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
170)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
171)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
172)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.38E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
173)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
174)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
175)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
176)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
177)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
178)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
179)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
180)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
181)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
182)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
183)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
184)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
185)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
186)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
187)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
188)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
189)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
190)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
191)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
192)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
193)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
194)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
195)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
196)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
197)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
198)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
199)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
200)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
201)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
202)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
203)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
204)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
205) mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
206) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
207) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
208) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	9.38E-07
prsmppu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
209) prsmppu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
210) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	9.38E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
211) prsmppu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	9.38E-07
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
212) prsmppu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	9.38E-07
prsmppu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
213) prsmppu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
214) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
215) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
216) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	9.05E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
217) prsmppu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
218) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
prsmppu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
219) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.93E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmppu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
220) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
prsmppu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
221) prsmppu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
222) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.93E-07
prsmppu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
223) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
224) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
225) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.33E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
226) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
227) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
228) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
229) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
230) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchamnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
231) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
232) mchamnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	7.44E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
233) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
mchamnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	



The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
234)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
235)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
236)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
237)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
238)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
239)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
240)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
241)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
242)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
243)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
244)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
245)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
246)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
247)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
248)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
249)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
250)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
251)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
252)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
253)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
254)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
255)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
256)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
257)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
258)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
259)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
260)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
261)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
262)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
263)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
264)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
265)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
266)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
267)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
268)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
269)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
270)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
271)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
272)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
273)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
274)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
275)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
276)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
277)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
278)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
279)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
280)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
281)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
282)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
283)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
284)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
285)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
286)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
287)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
288)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
289)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
290)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
291)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
292)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
293)	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
294)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
295)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
296)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
297)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
298)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
299)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
300)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
301)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
302)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
303)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
304)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
305)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
306)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
307)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
308)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
309)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
310)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
311)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
312)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
313)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
314)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
315)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
316)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
317)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
318)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
319)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
320)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
321)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
322)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
323)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
324)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
325)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
326)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
327)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
328)	mchwab003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
329)	mchwab003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
330)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.05E-07
	mchwab002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
331)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	3.05E-07
	mchwab002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
332)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchwab001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
333)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwab001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
334)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
335)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
336)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
337)	mchwab003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
338)	mchwab003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
339)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchwab002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
340)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	2.90E-07
	mchwab002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
341)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchwab001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
342)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwab001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
343)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwab002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
344)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwab001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
345)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwab001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
346)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwab002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
347)	mchwab003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
348)	mchwab003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.86E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
349)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwab002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
350)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwab001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
351)	mchwab003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.55E-07

## CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
352)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
353)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
354)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
355)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
356)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
357)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
358)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
359)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
360)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
361)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
362)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
363)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
364)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
365)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
366)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
367)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
368)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
369)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
370)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
371)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
372)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
373)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
374)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
375)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
376)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
377)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
378)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
379)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
380)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
381) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
382) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
383) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
384) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
385) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
386) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
387) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
388) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
389) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
390) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
391) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
392) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
393) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
394) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
395) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
396) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
397) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
398) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
399) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
400) prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
401) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
402) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
403) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
404) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
405) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
406) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
407) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
408) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
409) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
410) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
prscctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
411) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prscctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
412) prscctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
413) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prscctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
414) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
415) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
416) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
417) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
418) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
419) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
420) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
421) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
422) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
20) CDR-D	Commander Head-Down Position				See MIST Rpt.
1) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
2) dncspi001x	Surface Position Indicator (SPI)	6.7790E-4	24	1.61E-02<	1.61E-02
3) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
4) dnchsi001x	Horizontal Situation Indicator (HSI)	2.4340E-4	24	5.82E-03	5.82E-03
5) dncami001x	Alpha Mach Indicator / Electronics (AMI/E)	1.6080E-4	24	3.85E-03	3.85E-03
6) dpsmff001x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.83E-03
7) dncavv001x	Altitude Vertical Velocity Indicator / Electronics (AVVI/E)	7.3800E-5	24	1.77E-03	1.77E-03
8) dncadi001x	Attitude Director Indicator (ADI)	4.3400E-5	24	1.04E-03<	1.04E-03
9) dpggpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
21) CDR-U	Commander Head-Up Position				See MIST Rpt.
22) DDU-L	Display Driver Unit - Left				See MIST Rpt.
1) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsfic002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
23) DDU-R	Display Driver Unit - Right				See MIST Rpt.
1) dncddu00rx	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsfic003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
24) ELEVONS	Elevons				See MIST Rpt.
1) mchelv01ox	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03<	2.95E-03
2) mchelv01ix	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03<	2.95E-03
3) mchelv0rox	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03<	2.95E-03
4) mchelv0rix	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03<	2.95E-03
5) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
6) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
7) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
8) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
9) prscctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
10) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prscctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
11) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
12) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
13) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
14) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
15) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
16) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
17) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
18) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
19) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
20) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
21) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
22) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
23) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
24) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
25) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
26) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
27) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
28) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
29) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
30) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
31) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
32) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
33) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
34) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
35) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
36) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
37) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
38) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
39) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
40) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	



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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
41)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
42)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
43)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
44)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
45)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
46)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
47)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
48)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
49)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
50)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
51)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
52)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
53)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
54)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
55)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
56)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
57)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
58)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
59)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
60)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
61)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
62)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
63)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
64)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
65)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
66)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
67)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
68)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
69)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
70)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
71)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
72)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
73)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
74)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
75)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
76)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
77)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
78)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
79)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
80)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
81)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
82)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
83)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
84)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
85)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
86)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
87)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
88)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
89)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
90)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
91)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
92)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
93)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
94)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
95)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
96)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
97)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
98)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
99)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.80E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
100)	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
101)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
102)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
103)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
104)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
105)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
106)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
107)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
108)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
109)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
110)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
111)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
112)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
113)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
114)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
115)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
116)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
117)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
118)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
119)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
120)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
121)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
122)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
123)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
124)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
125)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
126)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
127)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
128)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
129)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
130)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
131)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
132)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
133)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
134)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
135)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
136)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
137)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
138)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
139)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
140)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
141)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
142)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
143)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
144)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
145)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
146)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
147)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
148)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
149)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
150)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
151)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
152)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
153)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
154)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
155)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
156)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
157)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
158)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
159)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
160)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
161)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
162)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
163)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
164)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
165)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
166)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
167)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
168)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
169)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
170)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
171)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
172)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
173)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
174)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
175)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
176)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
177)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
178)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
179)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
180)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
181)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
182)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
183)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
184)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
185)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
186)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
187)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
188) prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
189) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
190) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
191) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
192) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
193) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
194) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
195) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
196) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
197) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
198) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
199) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
200) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
201) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
202) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
203) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
204) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
205) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
206) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
207) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
208) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
209) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
210) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
211) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
212) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
213) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
214) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
215) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
216) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
217)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
218)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
219)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
220)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
221)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
222)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
223)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
224)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
225)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
226)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
227)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
228)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
229)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
230)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
231)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
232)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
233)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
234)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
235)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
236)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
237)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
238)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchftr002x Filter / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
239)	mchmnp003x Main Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
240)	mchftr003x Filter / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	mchcrp002x Circulation Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1l001x Controller / APU	5.2160E-4	12.183	6.33E-03	
241)	mchftr003x Filter / HYD	1.3333E-2	1.5	1.98E-02	7.08E-07
	prsc1l002x Controller / APU	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
242)	mchcrp003x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchftr002x Filter / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
243)	prsc1l003x Controller / APU	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchftr002x Filter / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
244)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
245)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
246)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
247)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
248)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
249)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
250)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
251)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
252)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
253)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
254)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
255)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
256)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
257)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
258)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
259)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
260)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
261)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
262)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
263)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
264)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
265)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
266)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
267)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
268)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
269)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
270)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
271)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
272)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
273)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
274)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
275)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	



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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
276) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
277) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
278) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
prsggv002x	Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
279) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
280) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv002x	Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
281) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
prsggv002x	Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
282) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
283) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
284) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
285) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
286) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
287) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
288) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
289) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
290) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
291) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
292) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
293) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
294) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
295) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
296) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
297) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
298) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
299) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
300) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
301) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
302) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsetl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
303) prsetl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
304) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsetl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
305)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
306)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
307)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
308)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
309)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
310)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
311)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
312)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
313)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
314)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
315)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
316)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
317)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
318)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
319)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
320)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
321)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
322)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
323)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
324)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
325)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
326)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
327)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
328)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
329)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
330)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
331)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
332)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
333)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
334)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
335)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
336)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
337)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
338)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
339)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
340)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
341)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
342)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
343)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
344)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
345)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
346)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
347)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
348)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
349)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
350)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
351)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
352)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
353)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
354)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
355)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.86E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
356)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
357)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
358)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
359)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
360)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
361)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
362)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
363)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.2E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
364) mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
365) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
366) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
367) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
368) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
369) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
370) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
371) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
372) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
373) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
374) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prscctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
375) prscctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
376) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prscctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
377) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
378) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
379) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
380) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
381) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
382) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
383) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
384) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
385) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
386) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
387) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
388) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
389) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
390) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
391) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
392) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

## CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
393)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwbsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
394)	mchwbsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
395)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	mchwbsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
396)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
397)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
398)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
399)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
400)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
401)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
402)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
403)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
404)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
405)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
406)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
407)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
408)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
409)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
410)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
411)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
412)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
413)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
414)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
415)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
416)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
417)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
418)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
419)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
420)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
421)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
422)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
423)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpr001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
424)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpr001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
425)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	prsmpr002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
426)	prsmpr003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
427)	prsmpr003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
428)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	prsmpr002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
429)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpr001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
430)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	prsmpr002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
431)	prsmpr003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
25)	FC-1 Fuel Cell 1				See MIST Rpt.
	1) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
26)	FC-2 Fuel Cell 2				See MIST Rpt.
	1) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
27)	FC-3 Fuel Cell 3				See MIST Rpt.
	1) prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
28)	FCS-1 Flight Critical String (FCS) 1				See MIST Rpt.
	1) dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
29)	FCS-2 Flight Critical String (FCS) 2				See MIST Rpt.
	1) dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
30)	FCS-3 Flight Critical String (FCS) 3				See MIST Rpt.
	1) dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
31)	FCS-4 Flight Critical String (FCS) 4				See MIST Rpt.
	1) dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
32)	GPC-1 General Purpose Computer (GPC) 1				See MIST Rpt.
	1) dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
33)	GPC-2 General Purpose Computer (GPC) 2				See MIST Rpt.
	1) dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
34)	GPC-3 General Purpose Computer (GPC) 3				See MIST Rpt.
	1) dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
35)	GPC-4 General Purpose Computer (GPC) 4				See MIST Rpt.
	1) dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
36)	HSI-L Horizontal Situation Indicator (HSI) - Left				See MIST Rpt.
	1) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
	2) dncddu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
	3) dnchsi001x Horizontal Situation Indicator (HSI)	2.4340E-4	24	5.82E-03	5.82E-03
37)	HSI-R Horizontal Situation Indicator (HSI) - Right				See MIST Rpt.
	1) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
	2) dncddu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
	3) dnchsi00rx Horizontal Situation Indicator (HSI)	2.4340E-4	24	5.82E-03	5.82E-03
38)	HUD-L Head Up Display (HUD) - Left				See MIST Rpt.
	1) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
	2) dnchud001x Head Up Display (HUD)	5.9800E-4	1	5.98E-04	5.98E-04
39)	HUD-R Head Up Display (HUD) - Right				See MIST Rpt.
	1) prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
	2) dnchud00rx Head Up Display (HUD)	5.9800E-4	1	5.98E-04	5.98E-04
40)	HYD-1 Hydraulics (HYD) 1				See MIST Rpt.
	1) prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.95E-02
	2) mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.08E-02
	3) prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	1.98E-02
	4) mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.41E-02

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
5) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	6.33E-03
6) mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.65E-03
7) prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.20E-03
8) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.04E-03
9) mchvly001x	ISO Valve (HYD-1)	7.0000E-7	24	1.68E-05	1.68E-05
41) HYD-2	Hydraulics (HYD) 2				See MIST Rpt.
1) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.95E-02
2) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.08E-02
3) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.98E-02
4) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.41E-02
5) mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	6.33E-03
6) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.65E-03
7) prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.20E-03
8) mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.04E-03
42) HYD-3	Hydraulics (HYD) 3				See MIST Rpt.
1) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.95E-02
2) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.08E-02
3) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.98E-02
4) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.41E-02
5) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	6.33E-03
6) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.65E-03
7) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.20E-03
8) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.04E-03
43) IMU	Inertial Measurement Unit				See MIST Rpt.
1) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
2) gncimu001x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	3.80E-06
gncimu002x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu003x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
3) dpsmff003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	4.45E-07
gncimu001x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu002x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
4) dpsmff001x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	4.45E-07
gncimu002x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu003x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
5) dpsmff002x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	4.45E-07
gncimu001x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu003x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
6) dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	2.34E-07
gncimu002x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu003x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
7) dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	2.34E-07
gncimu001x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu002x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
8) dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	2.34E-07
gncimu001x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu003x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
9) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.14E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncimu001x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu002x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
10) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.14E-07
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncimu002x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu003x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
11) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.14E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
gncimu001x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
gncimu003x	Inertial Measurement Unit (IMU)	6.5530E-4	24	1.56E-02	
44) L-I-ELEV	Left Inboard Elevon				See MIST Rpt.
1) mchelv001x	Elevon Actuator (ELV)	2.9585E-3	1.5	2.95E-03	2.95E-03
2) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
3) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
5) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
6) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
7) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
8) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
9) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
10) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
11) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
12) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
13) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
14) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
15) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
16) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
17) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
18) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
19) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
20) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
21) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
22) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
23) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
24) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
25) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
26) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
27) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
28) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
29) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
30) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
31) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
32) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
33) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.57E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
34) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
35) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
36) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
37) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
38) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	



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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
39)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
40)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
41)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
42)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
43)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
44)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
45)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
46)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
47)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
48)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
49)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
50)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
51)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
52)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
53)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
54)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
55)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
56)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
57)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
58)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
59)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
60)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
61)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
62)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
63)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
64)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
65)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
66)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
67)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
68) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
69) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
70) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
71) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
72) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
73) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
74) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
75) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
76) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
77) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
78) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
79) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
80) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
81) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
82) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
83) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
84) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
85) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
86) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
87) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
88) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
89) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
90) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
91) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
92) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
93) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
94) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
95) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
96) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.80E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
97) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06

CUTSET REPORT

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
98)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
99)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
100)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.74E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
101)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
102)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
103)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
104)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
105)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
106)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
107)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
108)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
109)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
110)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
111)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
112)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
113)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
114)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
115)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
116)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
117)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
118)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
119)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
120)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
121)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
122)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
123)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
124)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
125)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
126)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
127)	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
128)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
129)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
130)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
131)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
132)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
133)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
134)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
135)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
136)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
137)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
138)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
139)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
140)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
141)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
142)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
143)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
144)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
145)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
146)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
147)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
148)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
149)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
150)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
151)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
152)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
153)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
154)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
155)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
156)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
157)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
158)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
159)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
160)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
161)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
162)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
163)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
164)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
165)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
166)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
167)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
168)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
169)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
170)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
171)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
172)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
173)	mchmnp003x Main Pump / HYD	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
174)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
175)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
176)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
177)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
178)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
179)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
180)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
181)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
182)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
183)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
184)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
185)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
186)	mchmnp002x Main Pump / HYD prsmmpu001x Magnetic Pickup Unit / APU mchmnp003x Main Pump / HYD prsc1002x Controller / APU prsmmpu001x Magnetic Pickup Unit / APU	9.6153E-3 2.1373E-3 9.6153E-3 1.3333E-2 2.1373E-3	2.183 1.5 2.183 1.5 1.5	2.08E-02< 3.20E-03 2.08E-02< 1.98E-02 3.20E-03	1.32E-06
187)	mchftr003x Filter / HYD mchwsb002x Water Spray Boiler mchwsb001x Water Spray Boiler	5.2160E-4 1.2195E-2 1.2195E-2	12.183 1.167 1.167	6.33E-03 1.41E-02< 1.41E-02<	1.26E-06
188)	mchwsb003x Water Spray Boiler mchwsb002x Water Spray Boiler mchftr001x Filter / HYD	1.2195E-2 1.2195E-2 5.2160E-4	1.167 1.167 12.183	1.41E-02< 1.41E-02< 6.33E-03	1.26E-06
189)	mchwsb003x Water Spray Boiler mchftr002x Filter / HYD mchwsb001x Water Spray Boiler	1.2195E-2 5.2160E-4 1.2195E-2	1.167 12.183 1.167	1.41E-02< 6.33E-03 1.41E-02<	1.26E-06
190)	prsc1003x Controller / APU prsmmpu002x Magnetic Pickup Unit / APU prsc1001x Controller / APU	1.3333E-2 2.1373E-3 1.3333E-2	1.5 1.5 1.5	1.98E-02 3.20E-03 1.98E-02	1.25E-06
191)	prsmmpu003x Magnetic Pickup Unit / APU prsc1002x Controller / APU prsc1001x Controller / APU	2.1373E-3 1.3333E-2 1.3333E-2	1.5 1.5 1.5	3.20E-03 1.98E-02 1.98E-02	1.25E-06
192)	prsc1003x Controller / APU prsc1002x Controller / APU prsmmpu001x Magnetic Pickup Unit / APU	1.3333E-2 1.3333E-2 2.1373E-3	1.5 1.5 1.5	1.98E-02 1.98E-02 3.20E-03	1.25E-06
193)	mchftr003x Filter / HYD mchftr002x Filter / HYD prsggv001x Gas Generator Valve Module / APU	5.2160E-4 5.2160E-4 1.9960E-2	12.183 12.183 1.5	6.33E-03 6.33E-03 2.95E-02	1.18E-06
194)	prsggv003x Gas Generator Valve Module / APU mchftr002x Filter / HYD mchftr001x Filter / HYD	1.9960E-2 5.2160E-4 5.2160E-4	1.5 12.183 12.183	2.95E-02 6.33E-03 6.33E-03	1.18E-06
195)	mchftr003x Filter / HYD prsggv002x Gas Generator Valve Module / APU mchftr001x Filter / HYD	5.2160E-4 1.9960E-2 5.2160E-4	12.183 1.5 12.183	6.33E-03 2.95E-02 6.33E-03	1.18E-06
196)	mchwsb003x Water Spray Boiler mchwsb002x Water Spray Boiler mchcrp001x Circulation Pump / HYD	1.2195E-2 1.2195E-2 5.6680E-4	1.167 1.167 10	1.41E-02< 1.41E-02< 5.65E-03	1.12E-06
197)	mchcrp003x Circulation Pump / HYD mchwsb002x Water Spray Boiler mchwsb001x Water Spray Boiler	5.6680E-4 1.2195E-2 1.2195E-2	10 1.167 1.167	5.65E-03 1.41E-02< 1.41E-02<	1.12E-06
198)	mchwsb003x Water Spray Boiler mchcrp002x Circulation Pump / HYD mchwsb001x Water Spray Boiler	1.2195E-2 5.6680E-4 1.2195E-2	1.167 10 1.167	1.41E-02< 5.65E-03 1.41E-02<	1.12E-06
199)	prsggv003x Gas Generator Valve Module / APU mchftr002x Filter / HYD mchcrp001x Circulation Pump / HYD	1.9960E-2 5.2160E-4 5.6680E-4	1.5 12.183 10	2.95E-02 6.33E-03 5.65E-03	1.06E-06
200)	mchcrp003x Circulation Pump / HYD prsggv002x Gas Generator Valve Module / APU mchftr001x Filter / HYD	5.6680E-4 1.9960E-2 5.2160E-4	10 1.5 12.183	5.65E-03 2.95E-02 6.33E-03	1.06E-06
201)	mchftr003x Filter / HYD mchcrp002x Circulation Pump / HYD prsggv001x Gas Generator Valve Module / APU	5.2160E-4 5.6680E-4 1.9960E-2	12.183 10 1.5	6.33E-03 5.65E-03 2.95E-02	1.06E-06
202)	mchftr003x Filter / HYD prsggv002x Gas Generator Valve Module / APU mchcrp001x Circulation Pump / HYD	5.2160E-4 1.9960E-2 5.6680E-4	12.183 1.5 10	6.33E-03 2.95E-02 5.65E-03	1.06E-06
203)	prsggv003x Gas Generator Valve Module / APU mchcrp002x Circulation Pump / HYD mchftr001x Filter / HYD	1.9960E-2 5.6680E-4 5.2160E-4	1.5 10 12.183	2.95E-02 5.65E-03 6.33E-03	1.06E-06
204)	mchcrp003x Circulation Pump / HYD mchftr002x Filter / HYD prsggv001x Gas Generator Valve Module / APU	5.6680E-4 5.2160E-4 1.9960E-2	10 12.183 1.5	5.65E-03 6.33E-03 2.95E-02	1.06E-06
205)	mchcrp003x Circulation Pump / HYD mchcrp002x Circulation Pump / HYD prsggv001x Gas Generator Valve Module / APU	5.6680E-4 5.6680E-4 1.9960E-2	10 10 1.5	5.65E-03 5.65E-03 2.95E-02	9.42E-07
206)	mchcrp003x Circulation Pump / HYD prsggv002x Gas Generator Valve Module / APU mchcrp001x Circulation Pump / HYD	5.6680E-4 1.9960E-2 5.6680E-4	10 1.5 10	5.65E-03 2.95E-02 5.65E-03	9.42E-07
207)	prsggv003x Gas Generator Valve Module / APU mchcrp002x Circulation Pump / HYD mchcrp001x Circulation Pump / HYD	1.9960E-2 5.6680E-4 5.6680E-4	1.5 10 10	2.95E-02 5.65E-03 5.65E-03	9.42E-07
208)	prsmmpu003x Magnetic Pickup Unit / APU mchmnp002x Main Pump / HYD mchwsb001x Water Spray Boiler	2.1373E-3 9.6153E-3 1.2195E-2	1.5 2.183 1.167	3.20E-03 2.08E-02< 1.41E-02<	9.38E-07
209)	mchmnp003x Main Pump / HYD prsmmpu002x Magnetic Pickup Unit / APU mchwsb001x Water Spray Boiler	9.6153E-3 2.1373E-3 1.2195E-2	2.183 1.5 1.167	2.08E-02< 3.20E-03 1.41E-02<	9.38E-07
210)	prsmmpu003x Magnetic Pickup Unit / APU mchwsb002x Water Spray Boiler mchmnp001x Main Pump / HYD	2.1373E-3 1.2195E-2 9.6153E-3	1.5 1.167 2.183	3.20E-03 1.41E-02< 2.08E-02<	9.38E-07
211)	mchwsb003x Water Spray Boiler prsmmpu002x Magnetic Pickup Unit / APU mchmnp001x Main Pump / HYD	1.2195E-2 2.1373E-3 9.6153E-3	1.167 1.5 2.183	1.41E-02< 3.20E-03 2.08E-02<	9.38E-07
212)	mchwsb003x Water Spray Boiler mchmnp002x Main Pump / HYD prsmmpu001x Magnetic Pickup Unit / APU	1.2195E-2 9.6153E-3 2.1373E-3	1.167 2.183 1.5	1.41E-02< 2.08E-02< 3.20E-03	9.38E-07
213)	mchmnp003x Main Pump / HYD mchwsb002x Water Spray Boiler prsmmpu001x Magnetic Pickup Unit / APU	9.6153E-3 1.2195E-2 2.1373E-3	2.183 1.167 1.5	2.08E-02< 1.41E-02< 3.20E-03	9.38E-07
214)	prsfic001x Fuel Cell (FLC or FC) prsfic003x Fuel Cell (FLC or FC)	9.0900E-4 9.0900E-4	24 24	2.16E-02 2.16E-02	9.14E-07

## CUTSET REPORT

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
215)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft prsf1c001x Fuel Cell (FLC or FC)	8.1633E-5	24	1.96E-03<	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
216)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft mchrsr003x Reservoir / HYD	8.1633E-5	24	1.96E-03<	
	prsggv002x Gas Generator Valve Module / APU	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
217)	prsggv003x Gas Generator Valve Module / APU mchrsr002x Reservoir / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
218)	prsggv003x Gas Generator Valve Module / APU prsggv002x Gas Generator Valve Module / APU	4.3300E-5	24	1.04E-03<	
	mchrsr001x Reservoir / HYD	1.2195E-2	1.167	1.41E-02<	8.93E-07
219)	mchwsb003x Water Spray Boiler prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
220)	mchwsb003x Water Spray Boiler prsmmpu002x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsc1l001x Controller / APU	2.1373E-3	1.5	3.20E-03	
221)	prsmmpu003x Magnetic Pickup Unit / APU mchwsb002x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1l001x Controller / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
222)	prsc1l003x Controller / APU prsmmpu002x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	8.93E-07
223)	prsmmpu003x Magnetic Pickup Unit / APU prsc1l002x Controller / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	8.93E-07
224)	prsc1l003x Controller / APU mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
225)	mchmnp003x Main Pump / HYD mchftr002x Filter / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
226)	mchftr003x Filter / HYD mchmnp002x Main Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
227)	mchftr003x Filter / HYD mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
228)	mchftr003x Filter / HYD prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
229)	prsc1l003x Controller / APU mchftr002x Filter / HYD	1.3333E-2	1.5	1.98E-02	7.93E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
230)	mchftr003x Filter / HYD mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	7.44E-07
231)	mchftr003x Filter / HYD mchcrp002x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	5.6680E-4	10	5.65E-03	
232)	mchcrp003x Circulation Pump / HYD mchftr002x Filter / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchmnp001x Main Pump / HYD	5.2160E-4	12.183	6.33E-03	
233)	mchmnp003x Main Pump / HYD mchcrp002x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchftr001x Filter / HYD	5.6680E-4	10	5.65E-03	
234)	mchmnp003x Main Pump / HYD mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
235)	mchcrp003x Circulation Pump / HYD mchmnp002x Main Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
236)	mchftr003x Filter / HYD mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
237)	mchcrp003x Circulation Pump / HYD mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
238)	mchftr003x Filter / HYD mchcrp002x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1l001x Controller / APU	5.6680E-4	10	5.65E-03	7.08E-07
239)	mchftr003x Filter / HYD prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
240)	prsc1l003x Controller / APU mchftr002x Filter / HYD	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
241)	mchcrp003x Circulation Pump / HYD prsc1l002x Controller / APU	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	1.3333E-2	1.5	1.98E-02	7.08E-07
242)	prsc1l003x Controller / APU mchcrp002x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.6680E-4	10	5.65E-03	6.64E-07
243)	mchcrp003x Circulation Pump / HYD mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
244)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
245)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
246)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
247)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
248)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
249)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
250)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
251)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
252)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
253)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
254)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
255)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
256)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
257)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
258)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
259)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
260)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
261)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
262)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
263)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
264)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
265)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
266)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
267)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
268)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
269)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
270)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
271)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
272)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
273)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07



## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
274)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
275)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
276)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
277)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
278)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
279)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
280)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
281)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
282)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
283)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
284)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
285)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
286)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
287)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
288)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
289)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
290)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
291)	prsfllc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfllc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
292)	prsfllc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfllc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
293)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
294)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
295)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
296)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
297)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
298)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
299)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
300)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
301)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
302)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
303)	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
304)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
305)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
306)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
307)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
308)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
309)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
310)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
311)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
312)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
313)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
314)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
315)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
316)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
317)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
318)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
319)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
320)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
321)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
322)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
323)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
324)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
325)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
326)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
327)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
328)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
329)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
330)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
331)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
332)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
333)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
334)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
335)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
336)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
337)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
338)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
339)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
340)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
341)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
342)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
343)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
344)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
345)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
346)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
347)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
348)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
349)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
350)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
351)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
352)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
353)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
354)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
355)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
356)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
357)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
358)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
359)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
360)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
361)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
362)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
363)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.13E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
364)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
365)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
366)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
367)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
368)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
369)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
370)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
371)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
372)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
373)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
374)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
375)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
376)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
377)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
378)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
379)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
380)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
381)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
382)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
383)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
384)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
385)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
386)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
387)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
388)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
389)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
390)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.44E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
391) prsmptu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmptu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
392) prsmptu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmptu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
prsmptu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
393) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
394) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
395) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
396) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
397) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
398) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
399) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
400) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
401) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
402) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
403) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
404) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
405) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmptu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
406) prsmptu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
407) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
prsmptu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
408) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
409) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
410) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
411) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
412) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
413) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
414) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
415) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
416) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
417) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
418) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
419) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
420)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
421)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
422)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
423)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
424)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
425)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
426)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
427)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
428)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
45)	L-O-ELEV Left Outboard Elevon				See MIST Rpt.
1)	mchelv010x Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
2)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
3)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
4)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
5)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
6)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
7)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
8)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
9)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
10)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
11)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
12)	mchwdb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
13)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	mchwdb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
14)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwdb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
15)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
16)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
17)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
18)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
19)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
20)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
21)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
22)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
23)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
24)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
25)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
26)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
27)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
28)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
29)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
30)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
31)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
32)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
33)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
34)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
35)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
36)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
37)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
38)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
39)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
40)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
41)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
42)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
43)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
44)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
45)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
46)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	6.10E-06
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	6.10E-06
47)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	5.86E-06
48)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
49)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
50)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Outset Prob.
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
51)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
52)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
53)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
54)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
55)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
56)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
57)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
58)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
59)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
60)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
61)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
62)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
63)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
64)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
65)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
66)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
67)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
68)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
69)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
70)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
71)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
72)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
73)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
74)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
75)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
76)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
77)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
78)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
79)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	



Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
80) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
81) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
82) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
83) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
84) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
85) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
86) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.47E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
87) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
88) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
89) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
90) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
91) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
92) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
93) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
94) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
95) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
96) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.80E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
97) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
98) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
99) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
100) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.74E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
101) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.74E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
102) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
103) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
104) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
105) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
106) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.63E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
107) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
108) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.63E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
109) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.61E-06

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
110)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
111)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
112)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
113)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
114)	mchmp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
115)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
116)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
117)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
118)	mchmp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchmp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
119)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
120)	mchmp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
121)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
122)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
123)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
124)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
125)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
126)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
127)	mchmp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
128)	mchmp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
129)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
130)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
131)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
132)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchmp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
133)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
134)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
135)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
136)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	mchmp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
137)	mchmp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
138)	mchmp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
139)	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
140)	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
141)	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
142)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
143)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
144)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
145)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
146)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
147)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
148)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
149)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
150)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
151)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
152)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
153)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
154)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
155)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
156)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
157)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
158)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
159)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
160)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
161)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
162)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
163)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchcrp003x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
164)	mchwsb001x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchmnp003x Main Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	
165)	mchwsb001x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
166)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
167)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
168)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
169)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
170)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
171)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
172)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
173)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
174)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
175)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
176)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
177)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
178)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
179)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
180)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
181)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
182)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
183)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
184)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
185)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
186)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
187)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
188)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
189)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
190)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
191)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
192)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
193)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
194)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
195)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
196)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
197)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
198)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
199)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
200)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
201)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
202)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
203)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
204)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
205)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
206)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
207)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
208)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
209)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
210)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
211)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
212)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
213)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
214)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
215)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
216)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
217)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
218)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
219)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
220)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
221)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
222)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
223)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
224)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
225)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
226)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
227) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
228) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
229) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
230) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
231) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
232) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
233) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
234) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
235) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
236) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
237) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
238) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
239) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
240) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
241) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
242) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
243) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
244) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
245) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
246) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
247) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
248) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
249) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
250) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
251) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
252) prmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
253) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
254) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
prmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
255) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
256)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
257)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
258)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
259)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
260)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
261)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
262)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
263)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
264)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
265)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
266)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
267)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
268)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
269)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
270)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
271)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
272)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
273)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
274)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
275)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
276)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
277)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
278)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
279)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
280)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
281)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
282)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
283)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
284)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
285)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
286)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
287)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
288)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
289)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
290)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
291)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
292)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
293)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
294)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
295)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
296)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
297)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
298)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
299)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
300)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
301)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
302)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
303)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
304)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
305)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
306)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
307)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
308)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
309)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
310)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
311)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
312)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
313)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
314)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	



## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
315) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
316) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
317) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
318) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
319) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
320) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
321) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.76E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
322) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
323) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
324) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.76E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
325) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
326) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
327) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
328) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
329) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
330) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
331) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
332) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.05E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
333) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	3.05E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
334) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.05E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
335) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.05E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
336) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.05E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
337) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	3.05E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
338) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
339) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
340) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
341) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
342) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.90E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
343) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
344)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
345)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
346)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
347)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
348)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
349)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
350)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
351)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
352)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
353)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
354)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
355)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
356)	mchcrp003x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
357)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
358)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
359)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
360)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
361)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
362)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
363)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
364)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
365)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
366)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
367)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
368)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
369)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
370)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
371)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
372)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
373)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
374)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
375)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
376)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
377)	mchftr003x Filter / HYD	4.3300E-5	24	1.04E-03<	
	mchrsr002x Reservoir / HYD	1.9960E-2	1.5	2.95E-02	
378)	prsggv001x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	1.94E-07
	mchftr003x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	4.3300E-5	24	1.04E-03<	
379)	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	mchrsr003x Reservoir / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	
380)	mchftr001x Filter / HYD	1.9960E-2	1.5	2.95E-02	1.94E-07
	prsggv003x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	4.3300E-5	24	1.04E-03<	
381)	mchrsr001x Reservoir / HYD	1.9960E-2	1.5	2.95E-02	1.94E-07
	prsggv003x Gas Generator Valve Module / APU	4.3300E-5	24	1.04E-03<	
	mchrsr002x Reservoir / HYD	5.2160E-4	12.183	6.33E-03	
382)	mchftr001x Filter / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	mchrsr003x Reservoir / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.9960E-2	1.5	2.95E-02	
383)	prsggv001x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	1.80E-07
	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
384)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
385)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
386)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
387)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
388)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
389)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
390)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
391)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
392)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
393)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
394)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
395)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
396)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
397)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
398)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
399)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
400)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
401)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
402)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
403) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
404) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
405) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
406) prmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
407) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
prmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
408) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
mchmp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
409) mchmp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
410) mchmp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
411) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
412) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchmp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
413) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
414) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
415) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
416) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
417) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
418) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
419) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
420) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
421) prmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
422) prmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
prmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
423) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
prmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
424) prmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
425) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
prmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
426) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
427) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
prmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
428) prmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
46) MAIN-A	Main Power Supply - A				See MIST Rpt.
1) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
47) MAIN-B	Main Power Supply - B				See MIST Rpt.
1) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
48) MAIN-C	Main Power Supply - C				See MIST Rpt.
1) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
49) MAINGEAR	Main Landing Gear				See MIST Rpt.
50) MANUAL	Manual Landing Model				See MIST Rpt.
1) prsfic003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
2) mchbdf001x	Body Flap PDU (BDF)	7.2463E-3	.8	5.78E-03	5.78E-03
3) mchrsv001x	Servo Valve / RUD	4.8309E-3	.8	3.86E-03	3.86E-03
4) mchsbv001x	Speed Brake PDU (SBR)	4.8309E-3	.8	3.86E-03	3.86E-03
5) mchrud001x	Rudder PDU (RUD)	4.8309E-3	.8	3.86E-03	3.86E-03
6) mchssv001x	Servo Valve / SBR	4.8309E-3	.8	3.86E-03	3.86E-03
7) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
8) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
9) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
10) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
11) dpsmf004x	Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	1.39E-03
12) prsfic001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsfic002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
13) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.12E-05
dncddu00rx	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
14) prsfic002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
dpsmf004x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
15) prsfic001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
dpsmf003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
16) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
17) prsfic002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
dpsgpc004x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
18) prsfic001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
19) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
20) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
21) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
22) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
23) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
24) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
25) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	1.33E-05
dpsmf002x	Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	
26) dncddu00rx	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	1.33E-05
dpsmf001x	Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	
27) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
28) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
29) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
30) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
31) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
32) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
33) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
34) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
35) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
36) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
37) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
38) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
39) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
40) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
41) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
42) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
43) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
44) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
45) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
46) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
47) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
48) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
49) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
50) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
51) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
52) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
53) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
54) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
55) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
56) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
57) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
58) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
59) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
60) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
61) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
62) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	7.64E-06
gncrhc00rx	Rotation Hand Controller (RHC)	3.3333E-5	24	8.00E-04	
63) dncddu00rx	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	7.64E-06
gncrhc001x	Rotation Hand Controller (RHC)	3.3333E-5	24	8.00E-04	
64) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
65) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
66) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.10E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
67) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
68) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
69)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
70)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
71)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
72)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
73)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
74)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
75)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
76)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
77)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
78)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
79)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
80)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
81)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
82)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
83)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
84)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
85)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
86)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
87)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
88)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
89)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
90)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
91)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
92)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
93)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
94)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
95)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
96)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
97)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
98)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
99)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
100)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
101)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
102)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
103)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
104)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
105)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
106)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
107)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
108)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
109)	dpamff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	3.35E-06
	dpamff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
110)	dpamff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	3.35E-06
	dpamff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
111)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
112)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
113)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
114)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
115)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
116)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
117)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.80E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
118)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
119)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
120)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
121)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
122)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
123)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.74E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
124)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
125)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
126)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
127)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
128)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06



# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
129)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
130)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
131)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
132)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
133)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
134)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
135)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
136)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
137)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
138)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
139)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
140)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
141)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	5.6680E-4	10	5.65E-03	
142)	mchcrp003x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
143)	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
144)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
145)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
146)	mchcrp003x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
147)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
148)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
149)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
150)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
151)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
152)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
153)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
154)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
155)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
156)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
157)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsmnu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
158) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
159) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
160) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
161) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
162) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
163) dpsmof001x	Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	1.93E-06
dpsmof002x	Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	
164) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
prscctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
165) prscctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
166) prscctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
167) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
prscctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
168) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prscctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
169) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prscctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
170) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
171) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
172) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
173) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
174) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
175) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
176) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
prscctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
177) prscctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
178) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prscctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
179) prscctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
180) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prscctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
181) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
prscctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
182) dpsmff004x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.76E-06
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
183) dpsgpc004x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
dpsmff002x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
184) dpsmff003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.76E-06
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
185) dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
dpsmff001x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
186) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
187) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
188) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
189) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
190) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
191) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
192) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
193) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
194) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
195) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
196) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
197) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
198) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
199) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
200) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
201) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
202) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
203) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
204) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
205) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
206) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
207) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
208) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
209) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
210) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
211) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
212) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
213) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
214) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
215) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
216) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
217) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
218)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
219)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
	prscf1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscf1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
220)	prscf1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prscf1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
221)	prscf1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscf1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
222)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
223)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
224)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
225)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
226)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
227)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
228)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
229)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
230)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
231)	prscf1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
232)	prscf1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
233)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prscf1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
234)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prscf1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
235)	prscf1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
236)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prscf1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
237)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
238)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
239)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
240)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
241)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
242)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
243)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
244)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
245)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
246)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
247)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
248)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
249)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
250)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
251)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
252)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
253)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
254)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
255)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
256)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
257)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
258)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
259)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
260)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
261)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
262)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
263)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
264)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
265)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
266)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
267)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
268)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
269)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
270)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
271)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
272)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
273)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
274)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
275)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
276)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
277)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
278)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
279)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
280)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
281)	dncddu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	8.14E-07
	gncsbt001x Speed Brake / Thrust Control (SBTC)	1.4200E-5	6	8.52E-05	
282)	dncddu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	8.14E-07
	gncsbt00rx Speed Brake / Thrust Control (SBTC)	1.4200E-5	6	8.52E-05	
283)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
284)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
285)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
286)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
287)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
288)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
289)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
290)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
291)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
292)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
293)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
294)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
295)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
296)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
297)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
298)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
299)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
300)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
301)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
302)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
303)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
304)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
305)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
306)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
307)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07

The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
308)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
309)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
310)	gnrcrh00rx Rotation Hand Controller (RHC)	3.3333E-5	24	8.00E-04	6.40E-07
	gnrcrh001x Rotation Hand Controller (RHC)	3.3333E-5	24	8.00E-04	
311)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
312)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
313)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
314)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
315)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
316)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
317)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
318)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
319)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
320)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
321)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
322)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
323)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
324)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
325)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
326)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
327)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
328)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
329)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
330)	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
331)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
332)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
333)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
334)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
335)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
336)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
337) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
338) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
339) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
340) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
341) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
342) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
343) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
344) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
345) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
346) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
347) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
348) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
349) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
350) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
351) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
352) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
353) prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
354) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
355) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
356) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
357) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
358) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
359) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
360) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
361) prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
362) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
363) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
364) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
365) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
366) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07



CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
367)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
368)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
369)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
370)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
371)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
372)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
373)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
374)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
375)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
376)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
377)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
378)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
379)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
380)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
381)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
382)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
383)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
384)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
385)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
386)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
387)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
388)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
389)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
390)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
391)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
392)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
393)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
394)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
395)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
396)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
397)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
398)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
399)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
400)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
401)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
402)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
403)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
404)	prf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	gncadt003x Air Data Transducer Assembly (ADTA)	1.1250E-4	.167	1.88E-05	
405)	prf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	gncadt004x Air Data Transducer Assembly (ADTA)	1.1250E-4	.167	1.88E-05	
406)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
407)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
408)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
409)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
410)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
411)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
412)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwdb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
413)	mchwdb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
414)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwdb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
415)	mchwdb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
416)	mchwdb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
417)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwdb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
418)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
419)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
420)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
421)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
422)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
423)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
424)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
425)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
426) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
427) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
428) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
429) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
430) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
431) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
432) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
433) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
434) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
435) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
436) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
437) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
438) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
439) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	3.72E-07
gncrpt00rx	Rudder Pedal Transducer Assembly (RPTA)	7.1000E-6	5.5	3.90E-05<	
440) dncddu00rx	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	3.72E-07
gncrpt001x	Rudder Pedal Transducer Assembly (RPTA)	7.1000E-6	5.5	3.90E-05<	
441) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
442) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
443) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
444) mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
445) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
446) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
447) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
448) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
449) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
450) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
451) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
452) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
453) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
454) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
455) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
456)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
457)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
458)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
459)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
460)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
461)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
462)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
463)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
464)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
465)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
466)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
467)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
468)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
469)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
470)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prstcl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
471)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
472)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	prstcl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
473)	prstcl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
474)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
475)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
476)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
477)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
478)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
479)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
480)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
481)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
482)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
483)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
484)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	

## CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
485)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
486)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
487)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
488)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
489)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
490)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
491)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
492)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
493)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
494)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
495)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
496)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
497)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
498)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
499)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
500)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
501)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
502)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
503)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
504)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
505)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
506)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
507)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
508)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
509)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
510)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
511)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
512)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
513)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
514)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
515) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
516) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
517) mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
prscftr001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
518) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
prscftr002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
519) prscftr002x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
520) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
prscftr001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
521) prscftr003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
522) prscftr003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
523) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
524) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
525) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
526) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
527) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
528) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
529) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
530) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
531) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
532) prscftr003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
533) prscftr002x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
534) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
prscftr001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
535) prscftr003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
536) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
prscftr002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
537) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
prscftr001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
538) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
539) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
540) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
541) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
542) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
543) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
544) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
prsmpt002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmpt001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
545) prsmpt003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmpt001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
546) prsmpt003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prsmpt002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
547) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
548) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
549) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
550) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
551) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
552) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
553) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
554) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
555) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
556) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
557) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
558) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
559) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.91E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
560) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.91E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
561) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.91E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
562) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
563) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
564) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
565) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
566) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
567) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
568) prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
569) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
570) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.85E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
571) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
572) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.85E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
573) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.85E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
574) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
575) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
576) prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
577) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
578) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
579) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
580) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
581) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
582) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
583) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
584) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
585) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
586) mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
587) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
588) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
589) prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
590) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.75E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
591) mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
592) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
593) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
594) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.75E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
595) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.75E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
596) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
597) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
598) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.73E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
599) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
600) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.73E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
601) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
602) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07



# The Model - Cut-Set Report

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
603)	mchcrp001x Circulation Pump / HYD dpsgpc002x General Purpose Computer (PASS) mchcrp003x Circulation Pump / HYD prsggv002x Gas Generator Valve Module / APU dpsgpc001x General Purpose Computer (PASS)	5.6680E-4 4.0000E-5 5.6680E-4 1.9960E-2	10 5 24 4 10 2 1.5	5.65E-03 9.60E-04 5.65E-03 2.95E-02	1.60E-07
604)	prsggv003x Gas Generator Valve Module / APU mchcrp002x Circulation Pump / HYD dpsgpc001x General Purpose Computer (PASS)	1.9960E-2 5.6680E-4 4.0000E-5	2 1.5 4 10 2 1.5	2.95E-02 5.65E-03 9.60E-04	1.60E-07
605)	prsggv002x Gas Generator Valve Module / APU mchcrp001x Circulation Pump / HYD dpsgpc003x General Purpose Computer (PASS)	1.9960E-2 5.6680E-4 4.0000E-5	2 1.5 4 10 2 1.5	2.95E-02 5.65E-03 9.60E-04	1.60E-07
606)	mchcrp002x Circulation Pump / HYD prsggv001x Gas Generator Valve Module / APU dpsgpc003x General Purpose Computer (PASS)	1.9960E-2 4.0000E-5 5.6680E-4	2 1.5 24 10	2.95E-02 9.60E-04 5.65E-03	1.60E-07
607)	mchcrp003x Circulation Pump / HYD prsggv001x Gas Generator Valve Module / APU dpsgpc002x General Purpose Computer (PASS)	1.9960E-2 4.0000E-5 5.6680E-4	2 1.5 24 10	2.95E-02 9.60E-04 5.65E-03	1.60E-07
608)	mchcrp003x Circulation Pump / HYD mchwsb001x Water Spray Boiler dpsmfa002x Multiplexer Demultiplexer / Flight Aft	5.6680E-4 1.2195E-2 8.1633E-5	10 2 1.167 24	5.65E-03 1.41E-02 1.96E-03	1.56E-07
609)	mchcrp003x Circulation Pump / HYD mchwsb002x Water Spray Boiler dpsmfa001x Multiplexer Demultiplexer / Flight Aft	1.2195E-2 8.1633E-5 1.2195E-2	2 1.167 24 2 1.167	1.41E-02 1.96E-03 1.41E-02	1.56E-07
610)	mchwsb002x Water Spray Boiler mchcrp001x Circulation Pump / HYD dpsmfa003x Multiplexer Demultiplexer / Flight Aft	5.6680E-4 8.1633E-5 1.2195E-2	10 24 2 1.167	5.65E-03 1.96E-03 1.41E-02	1.56E-07
611)	mchwsb003x Water Spray Boiler mchcrp002x Circulation Pump / HYD dpsmfa001x Multiplexer Demultiplexer / Flight Aft	5.6680E-4 8.1633E-5 1.2195E-2	10 24 2 1.167	5.65E-03 1.96E-03 1.41E-02	1.56E-07
612)	mchwsb003x Water Spray Boiler mchcrp001x Circulation Pump / HYD dpsmfa002x Multiplexer Demultiplexer / Flight Aft	5.6680E-4 8.1633E-5 1.2195E-2	10 24 2 1.167	5.65E-03 1.96E-03 1.41E-02	1.56E-07
613)	mchcrp002x Circulation Pump / HYD mchwsb001x Water Spray Boiler dpsmfa003x Multiplexer Demultiplexer / Flight Aft	1.2195E-2 8.1633E-5 1.2195E-2	2 1.167 24 2 1.167	1.41E-02 1.96E-03 1.41E-02	1.44E-07
614)	mchwsb003x Water Spray Boiler prsmipu002x Magnetic Pickup Unit / APU prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3 2.1373E-3 2.1373E-3	3 1.5 1.5 1.5	3.20E-03 3.20E-03 3.20E-03	1.44E-07
615)	prsmipu003x Magnetic Pickup Unit / APU mchwsb002x Water Spray Boiler prsmipu001x Magnetic Pickup Unit / APU	1.2195E-2 2.1373E-3 2.1373E-3	2 1.167 1.5 1.5	1.41E-02 3.20E-03 3.20E-03	1.44E-07
616)	prsmipu003x Magnetic Pickup Unit / APU prsmipu002x Magnetic Pickup Unit / APU mchwsb001x Water Spray Boiler	2.1373E-3 2.1373E-3 1.2195E-2	1.5 1.5 2 1.167	3.20E-03 3.20E-03 1.41E-02	1.37E-07
617)	mchftr003x Filter / HYD mchmnp002x Main Pump / HYD mchrsr001x Reservoir / HYD	5.2160E-4 9.6153E-3 4.3300E-5	12.183 2.183 24	6.33E-03 2.08E-02 1.04E-03	1.37E-07
618)	mchrsr003x Reservoir / HYD mchftr002x Filter / HYD mchmnp001x Main Pump / HYD	5.2160E-4 9.6153E-3 9.6153E-3	12.183 2.183 2.183	6.33E-03 2.08E-02 2.08E-02	1.37E-07
619)	mchmnp003x Main Pump / HYD mchftr002x Filter / HYD mchrsr001x Reservoir / HYD	9.6153E-3 4.3300E-5 5.2160E-4	2.183 24 12.183	2.08E-02 1.04E-03 6.33E-03	1.37E-07
620)	mchftr003x Filter / HYD mchrsr002x Reservoir / HYD mchmnp001x Main Pump / HYD	5.2160E-4 4.3300E-5 9.6153E-3	12.183 24 2.183	6.33E-03 1.04E-03 2.08E-02	1.37E-07
621)	mchmnp003x Main Pump / HYD mchrsr002x Reservoir / HYD mchftr001x Filter / HYD	9.6153E-3 4.3300E-5 5.2160E-4	2.183 24 12.183	2.08E-02 1.04E-03 6.33E-03	1.37E-07
622)	mchrsr003x Reservoir / HYD mchmnp002x Main Pump / HYD mchftr001x Filter / HYD	5.2160E-4 9.6153E-3 9.6153E-3	12.183 2.183 2.183	6.33E-03 2.08E-02 2.08E-02	1.32E-07
623)	mchmnp003x Main Pump / HYD mchwsb001x Water Spray Boiler gncasa002x Aero Surface Amplifier (ASA)	1.2195E-2 1.0000E-4 1.2195E-2	2 1.167 4 4.5 2 1.167	1.41E-02 4.50E-04 1.41E-02	1.32E-07
624)	mchwsb003x Water Spray Boiler mchmnp002x Main Pump / HYD gncasa001x Aero Surface Amplifier (ASA)	9.6153E-3 1.0000E-4 9.6153E-3	2.183 4 4.5 2.183	2.08E-02 4.50E-04 2.08E-02	1.32E-07
625)	mchmnp002x Main Pump / HYD mchwsb001x Water Spray Boiler gncasa003x Aero Surface Amplifier (ASA)	1.2195E-2 1.0000E-4 1.2195E-2	2 1.167 4 4.5 2 1.167	1.41E-02 4.50E-04 1.41E-02	1.32E-07
626)	mchwsb003x Water Spray Boiler mchmnp001x Main Pump / HYD gncasa002x Aero Surface Amplifier (ASA)	9.6153E-3 1.0000E-4 1.2195E-2	2.183 4 4.5 2 1.167	2.08E-02 4.50E-04 1.41E-02	1.32E-07
627)	mchwsb002x Water Spray Boiler mchmnp001x Main Pump / HYD gncasa003x Aero Surface Amplifier (ASA)	9.6153E-3 1.0000E-4 9.6153E-3	2.183 4 4.5 2.183	2.08E-02 4.50E-04 2.08E-02	1.32E-07
628)	mchmnp003x Main Pump / HYD mchwsb002x Water Spray Boiler gncasa001x Aero Surface Amplifier (ASA)	1.2195E-2 1.0000E-4 1.2195E-2	2 1.167 4 4.5 2 1.167	1.41E-02 4.50E-04 1.41E-02	1.30E-07
629)	prsmipu002x Magnetic Pickup Unit / APU mchmnp001x Main Pump / HYD dpsmfa003x Multiplexer Demultiplexer / Flight Aft	2.1373E-3 8.1633E-5 2.1373E-3	1.5 24 1.5	3.20E-03 1.96E-03 3.20E-03	1.30E-07
630)	prsmipu003x Magnetic Pickup Unit / APU mchmnp001x Main Pump / HYD dpsmfa002x Multiplexer Demultiplexer / Flight Aft	9.6153E-3 8.1633E-5 9.6153E-3	2.183 24 2.183	2.08E-02 1.96E-03 2.08E-02	1.30E-07
631)	mchmnp003x Main Pump / HYD prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3 2.1373E-3	1.5 1.5	3.20E-03 3.20E-03	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
632)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
633)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
634)	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
635)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
636)	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
637)	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
638)	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
639)	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
640)	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
641)	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
642)	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
643)	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
644)	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
645)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
646)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
647)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
648)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
649)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
650)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
651)	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
652)	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
653)	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
654)	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
655)	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
656)	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
657)	gncocaa001x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
	gncocaa003x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
658)	gncocaa003x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
	gncocaa004x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
659)	gncocaa003x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
	gncocaa004x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
660)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
	gncocaa002x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
	gncocaa004x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	

## The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
661)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.24E-07
	gncoaa001x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
	gncoaa004x Orbiter Accelerometer Assembly (OAA)	1.0000E-4	24	2.40E-03<	
662)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
663)	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
664)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
665)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
666)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
667)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
668)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
669)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
670)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
671)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
672)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
673)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
674)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
675)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
676)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
677)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
678)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
679)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
680)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
681)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
682)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
683)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
684)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
685)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
686)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
687)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
688)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
689)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
690)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
691) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
692) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
693) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
694) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
695) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
mchmanp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
696) mchmanp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
697) mchmanp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
698) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
mchmanp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
699) mchmanp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
700) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
mchmanp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
701) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
702) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
703) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
704) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
705) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
706) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
707) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
708) prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
709) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
51) MEMFA-1	Multiplexer Demultiplexer (MEMO Flight Aft (FA) 1				See MIST Rpt.
1) dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	1.96E-03
2) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
52) MEMFA-2	Multiplexer Demultiplexer (MEMO Flight Aft (FA) 2				See MIST Rpt.
1) dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	1.96E-03
2) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
53) MEMFA-3	Multiplexer Demultiplexer (MEMO Flight Aft (FA) 3				See MIST Rpt.
1) dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	1.96E-03
2) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
54) MEMFA-4	Multiplexer Demultiplexer (MEMO Flight Aft (FA) 4				See MIST Rpt.
1) dpsmfa004x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	1.96E-03
2) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
55) MEMFF-1	Multiplexer Demultiplexer (MEMO Flight Forward (FF) 1				See MIST Rpt.
1) dpsmff001x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.83E-03
2) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
56) MEMFF-2	Multiplexer Demultiplexer (MEMO Flight Forward (FF) 2				See MIST Rpt.
1) dpsmff002x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.83E-03

# The Model - Cut-Set Report

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	2) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
57) MDMFF-3	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 3				See MIST Rpt.
	1) dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.83E-03
	2) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
58) MDMFF-4	Multiplexer Demultiplexer (MDM) Flight Forward (FF) 4				See MIST Rpt.
	1) dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.83E-03
	2) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
59) MDMOF-1	Multiplexer Demultiplexer (MDM) Operational Instrumentation Forward (OF)				See MIST Rpt.
	1) dpsmof001x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	1.39E-03
	2) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
60) MDMOF-2	Multiplexer Demultiplexer (MDM) Operational Instrumentation Forward (OF)				See MIST Rpt.
	1) dpsmof002x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	1.39E-03
	2) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
61) MDMOF-4	Multiplexer Demultiplexer (MDM) Operational Instrumentation Forward (OF)				See MIST Rpt.
	1) dpsmof004x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	1.39E-03
	2) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
62) MOTOR-L	Motor / ADTA - Left				See MIST Rpt.
	1) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
63) MOTOR-R	Motor / ADTA - Right				See MIST Rpt.
	1) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
64) MSBLS	Microwave Scanning Beam Landing System				See MIST Rpt.
	1) cntmlg001x MSBLS - Ground Station	4.3497E-4	5.5	2.39E-03	2.39E-03
	2) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
	prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	3) cntdec003x MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	3.86E-07
	cntdec002x MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
	cntdec001x MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
	4) cntdfa003x Radio Frequency Assembly (Part of MLS)	3.7679E-4	5.5	2.07E-03	1.10E-07
	cntdec002x MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
	cntdec001x MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
	5) cntdec003x MSBLS Decoder (Part of MLS)	3.7679E-4	5.5	2.07E-03	
	cntdfa002x Radio Frequency Assembly (Part of MLS)	1.3280E-3	5.5	7.28E-03	
	cntdec001x MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	2.07E-03	1.10E-07
	6) cntdfa001x Radio Frequency Assembly (Part of MLS)	3.7679E-4	5.5	7.28E-03	
	cntdec003x MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
	cntdec002x MSBLS Decoder (Part of MLS)	1.3280E-3	5.5	7.28E-03	
65) NWS	Nose Wheel Steering				See MIST Rpt.
	1) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	2) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	3) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsflc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	4) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.06E-04
	dncddu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
	5) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.06E-04
	dncddu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
	6) dncddu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.12E-05
	dncddu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
	7) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
	8) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
	9) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
	10) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
	11) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	12) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	13) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	14) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	15) dncddu001x Display Driver Unit (DDU)	7.6190E-5	24	1.83E-03	
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	4.0000E-4	24	9.55E-03	1.75E-05
	16) dncddu001x Display Driver Unit (DDU)	7.6190E-5	24	1.83E-03	
	dpsmff001x Multiplexer Demultiplexer / Flight Forward				

## Orbiter Autoland Reliability Analysis

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
17)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.75E-05
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
18)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.75E-05
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
19)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.17E-06
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
20)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.17E-06
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
21)	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.17E-06
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
22)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.17E-06
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
23)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.41E-06
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
24)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.41E-06
	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
25)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	3.35E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
26)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	3.35E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
27)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	3.35E-06
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
28)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	3.35E-06
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
29)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.76E-06
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
30)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
31)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.76E-06
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
32)	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
33)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
34)	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
35)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.76E-06
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
36)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.76E-06
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
37)	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	1.51E-06
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
38)	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	1.51E-06
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
39)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
40)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
41)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
42)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
43)	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	2.89E-07
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
44)	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	2.89E-07
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
45)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	2.89E-07
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
46)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	2.89E-07
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
47)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.52E-07
	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
48)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.52E-07
	gnscsb002x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
49)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.52E-07
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
50)	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.52E-07
	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	
66)	NWS-1 Nose Wheel Steering 1				See MIST Rpt.
1)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
2)	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
3)	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.83E-03
4)	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.83E-03
5)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
6)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
7)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
8)	gnscsb001x Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	1.58E-04
67)	NWS-2 Nose Wheel Steering 2				See MIST Rpt.
1)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
2)	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
3)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.83E-03
4)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.83E-03
5)	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
6)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
7)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04

# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
prsfic003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
8) gncscb002x	Steering Control Box (SCB) / NWS	2.8800E-5	5.5	1.58E-04	1.58E-04
68) ORBITER	Orbiter Landing Model - Top Level				See MIST Rpt.
1) prsfic003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
2) mchbdf001x	Body Flap PDU (BDF)	7.2463E-3	.8	5.78E-03	5.78E-03
3) mchsb001x	Speed Brake PDU (SBR)	4.8309E-3	.8	3.86E-03	3.86E-03
4) mchrud001x	Rudder PDU (RUD)	4.8309E-3	.8	3.86E-03	3.86E-03
5) mchrsv001x	Servo Valve / RUD	4.8309E-3	.8	3.86E-03	3.86E-03
6) mchssv001x	Servo Valve / SBR	4.8309E-3	.8	3.86E-03	3.86E-03
7) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
8) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
9) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
10) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
11) prsfic001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
12) prsfic002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
12) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.12E-05
12) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
13) prsfic001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
14) dpmf003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
14) prsfic002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
15) dpmf004x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
15) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
15) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
15) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
16) prsfic002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
17) dpgpc004x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
17) prsfic001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
18) dpgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
18) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
18) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
19) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
19) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.81E-05
19) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
19) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
20) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
20) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
20) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
21) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
21) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
21) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
21) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
22) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
22) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
22) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
23) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
23) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
23) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
24) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
24) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
24) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
25) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
25) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
25) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
26) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
26) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
26) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
27) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
27) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
27) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
28) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.23E-05
28) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
28) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
29) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
29) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
29) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
30) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
30) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
30) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
31) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
31) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
31) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
32) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
32) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
32) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
33) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
33) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
33) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
34) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
34) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
34) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
35) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
35) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
35) prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
36) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
36) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
36) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
37) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
37) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
38)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
39)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
40)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
41)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
42)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
43)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
44)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
45)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
46)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
47)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
48)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
49)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
50)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
51)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
52)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
53)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
54)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
55)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
56)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
57)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
58)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
59)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
60)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
61)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
62)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
63)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
64)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
65)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
66)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	



The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
67)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
68)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
69)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
70)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
71)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
72)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
73)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
74)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
75)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
76)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
77)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
78)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
79)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
80)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
81)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	4.14E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
82)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
83)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.94E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
84)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
85)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
86)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
87)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
88)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
89)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
90)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
91)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
92)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
93)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
94)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
95)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
96)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
97)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
98)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
99)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
100)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
101)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
102)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
103)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
104)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	3.35E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
105)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	3.35E-06
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
106)	cntalgt001x MSBLS - Ground Station	4.3497E-4	5.5	2.39E-03	3.32E-06
	dpsmof001x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	
107)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
108)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
109)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
110)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
111)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
112)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
113)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.80E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
114)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
115)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
116)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
117)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
118)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
119)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
120)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
121)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
122)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
123)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
124)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
125)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
126)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

## The Model - Cut-Set Report

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
127)	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
128)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
129)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
130)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
131)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
132)	mchftr003x Filter / HYD	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
133)	prsc1003x Controller / APU	5.2160E-4	12.183	6.33E-03	2.48E-06
	mchftr002x Filter / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
134)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.6680E-4	10	5.65E-03	2.44E-06
135)	mchcrp003x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.44E-06
136)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02	2.44E-06
137)	mchmnp003x Main Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
138)	mchcrp003x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
139)	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02	2.35E-06
140)	mchwsb003x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02	2.35E-06
141)	mchwsb003x Water Spray Boiler	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	2.35E-06
142)	mchcrp003x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	2.35E-06
143)	prsggv003x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	9.6153E-3	2.183	2.08E-02	2.33E-06
144)	mchmnp003x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
145)	mchcrp003x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	5.6680E-4	10	5.65E-03	2.33E-06
146)	mchcrp003x Circulation Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	2.33E-06
147)	prsc1003x Controller / APU	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	2.33E-06
148)	prsc1003x Controller / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02	2.33E-06
149)	mchmnp003x Main Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
150)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
151)	mchcrp003x Circulation Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
152)	prsc1003x Controller / APU	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	9.6153E-3	2.183	2.08E-02	1.96E-06
153)	mchmnp003x Main Pump / HYD	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
154)	prsmmpu003x Magnetic Pickup Unit / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp002x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
155)	prsmmpu003x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD				

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
156)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
157)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
158)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
159)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
160)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
161)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
162)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
163)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
164)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
165)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
166)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
167)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
168)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
169)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
170)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
171)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
172)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
173)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
174)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
175)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
176)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
177)	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
178)	dpsmff003x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.76E-06
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
179)	dpsmff004x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.76E-06
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
180)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	
181)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
182)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
183)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
184)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
185)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
186)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
187) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
188) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
189) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
190) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
191) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
192) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
193) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
194) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
195) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
196) prsmmp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
197) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
prsmmp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
198) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
199) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
prsmmp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
200) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
201) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmmp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
202) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
prsmmp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
203) prsmmp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
204) prsmmp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
205) prsmmp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
206) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
prsmmp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
207) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
208) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
prsmmp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
209) prsmmp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
210) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmmp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
211) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
212) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
213) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
214) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
prsmmp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
215) prsmmp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
216)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
217)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.20E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
218)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
219)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.20E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
220)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
221)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.20E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
222)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
223)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
224)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
225)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
226)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
227)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
228)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
229)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
230)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
231)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
232)	mchwdb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.12E-06
	mchwdb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
233)	mchwdb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.12E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwdb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
234)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
	mchwdb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwdb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
235)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
236)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
237)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
238)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
239)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
240)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
241)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
242)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
243)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
244)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwdb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
245)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	9.38E-07

## The Model - Cut-Set Report

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
246)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
247)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
248)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
249)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
250)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
251)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
252)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
253)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
254)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
255)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
256)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
257)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
258)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
259)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
260)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
261)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
262)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
263)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
264)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
265)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
266)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
267)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
268)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
269)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
270)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
271)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
272)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
273)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
274)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
275)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
276) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
277) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
278) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
279) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
280) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
281) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
282) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
283) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
284) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
285) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
286) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
287) prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
288) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
289) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
290) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
291) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
292) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
293) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
294) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
295) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
296) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
297) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
298) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
299) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
300) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
301) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
302) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
303) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
304) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	



# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
305) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
306) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
307) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
308) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
309) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
310) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
311) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
312) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
313) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
314) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
315) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
316) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
317) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
318) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
319) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
320) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
321) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
322) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
323) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
324) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
325) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
326) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
327) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
328) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
329) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
330) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
331) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
332) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
333) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
334)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
335)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
336)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
337)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
338)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
339)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
340)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
341)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
342)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
343)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
344)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
345)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
346)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
347)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
348)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
349)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
350)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
351)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
352)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
353)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
354)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
355)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
356)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
357)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
358)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
359)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
360)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
361)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
362)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
363)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07

## CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
364) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
365) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
366) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
367) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
368) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
369) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
370) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
371) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
372) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
373) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
374) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
375) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
376) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
377) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
378) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
379) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
380) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
381) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
382) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
383) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
384) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
385) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
386) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
387) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
388) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
389) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
390) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
391) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
392) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
393)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
394)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
395)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
396)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	gncadt003x Air Data Transducer Assembly (ADTA)	1.1250E-4	.167	1.88E-05	
397)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	gncadt004x Air Data Transducer Assembly (ADTA)	1.1250E-4	.167	1.88E-05	
398)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchfr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
399)	mchfr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
400)	mchfr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
401)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchfr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
402)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchfr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
403)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchfr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
404)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
405)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
406)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
407)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
408)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
409)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
410)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
411)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
412)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
413)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
414)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
415)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
416)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
417)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
418)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
419)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
420)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
421)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
422)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	

The Model - Cut-Set Report

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
423)	dpsgpc001x General Purpose Computer (PASS) prscctl003x Controller / APU prscctl001x Controller / APU dpsgpc002x General Purpose Computer (PASS)	4.0000E-5 1.3333E-2 1.3333E-2 4.0000E-5	24 1.5 1.5 24	9.60E-04 1.98E-02 1.98E-02 9.60E-04	3.76E-07
424)	prscctl002x Controller / APU prscctl001x Controller / APU dpsgpc003x General Purpose Computer (PASS)	1.3333E-2 1.3333E-2 4.0000E-5	1.5 1.5 24	1.98E-02 1.98E-02 9.60E-04	3.76E-07
425)	mchmnp003x Main Pump / HYD prsmmpu002x Magnetic Pickup Unit / APU mchcrp001x Circulation Pump / HYD	9.6153E-3 2.1373E-3 5.6680E-4	2.183 1.5 10	2.08E-02 3.20E-03 5.65E-03	3.76E-07
426)	prsmmpu003x Magnetic Pickup Unit / APU mchmnp002x Main Pump / HYD mchcrp001x Circulation Pump / HYD	2.1373E-3 9.6153E-3 5.6680E-4	1.5 2.183 10	3.20E-03 2.08E-02 5.65E-03	3.76E-07
427)	mchcrp003x Circulation Pump / HYD mchmnp002x Main Pump / HYD prsmmpu001x Magnetic Pickup Unit / APU	5.6680E-4 9.6153E-3 2.1373E-3	10 2.183 1.5	5.65E-03 2.08E-02 3.20E-03	3.76E-07
428)	mchcrp003x Circulation Pump / HYD prsmmpu002x Magnetic Pickup Unit / APU mchmnp001x Main Pump / HYD	5.6680E-4 2.1373E-3 9.6153E-3	10 1.5 2.183	5.65E-03 3.20E-03 2.08E-02	3.76E-07
429)	prsmmpu003x Magnetic Pickup Unit / APU mchcrp002x Circulation Pump / HYD mchmnp001x Main Pump / HYD	2.1373E-3 9.6153E-3 5.6680E-4	1.5 2.183 10	3.20E-03 2.08E-02 5.65E-03	3.76E-07
430)	mchmnp003x Main Pump / HYD mchcrp002x Circulation Pump / HYD prsmmpu001x Magnetic Pickup Unit / APU	9.6153E-3 5.6680E-4 2.1373E-3	2.183 10 1.5	2.08E-02 5.65E-03 3.20E-03	3.76E-07
431)	mchftr003x Filter / HYD prsggv002x Gas Generator Valve Module / APU dpsmfa001x Multiplexer Demultiplexer / Flight Aft	5.2160E-4 1.9960E-2 8.1633E-5	12.183 1.5 24	6.33E-03 2.95E-02 1.96E-03	3.66E-07
432)	prsggv003x Gas Generator Valve Module / APU mchftr002x Filter / HYD dpsmfa001x Multiplexer Demultiplexer / Flight Aft	1.9960E-2 8.1633E-5 5.2160E-4	1.5 24 12.183	2.95E-02 1.96E-03 6.33E-03	3.66E-07
433)	mchftr003x Filter / HYD prsggv001x Gas Generator Valve Module / APU dpsmfa002x Multiplexer Demultiplexer / Flight Aft	5.2160E-4 1.9960E-2 8.1633E-5	12.183 1.5 24	6.33E-03 2.95E-02 1.96E-03	3.66E-07
434)	prsggv003x Gas Generator Valve Module / APU mchftr001x Filter / HYD dpsmfa002x Multiplexer Demultiplexer / Flight Aft	1.9960E-2 8.1633E-5 5.2160E-4	1.5 24 12.183	2.95E-02 1.96E-03 6.33E-03	3.66E-07
435)	mchftr002x Filter / HYD prsggv001x Gas Generator Valve Module / APU dpsmfa003x Multiplexer Demultiplexer / Flight Aft	5.2160E-4 1.9960E-2 8.1633E-5	12.183 1.5 24	6.33E-03 2.95E-02 1.96E-03	3.66E-07
436)	prsggv002x Gas Generator Valve Module / APU mchftr001x Filter / HYD dpsmfa003x Multiplexer Demultiplexer / Flight Aft	1.9960E-2 8.1633E-5 1.3333E-2	1.5 24 1.5	2.95E-02 1.96E-03 3.20E-03	3.58E-07
437)	prscctl003x Controller / APU prsmmpu002x Magnetic Pickup Unit / APU mchcrp001x Circulation Pump / HYD	2.1373E-3 5.6680E-4 2.1373E-3	1.5 10 1.5	3.20E-03 5.65E-03 3.20E-03	3.58E-07
438)	prsmmpu003x Magnetic Pickup Unit / APU prscctl002x Controller / APU mchcrp001x Circulation Pump / HYD	2.1373E-3 1.3333E-2 5.6680E-4	1.5 1.5 10	3.20E-03 1.98E-02 5.65E-03	3.58E-07
439)	mchcrp003x Circulation Pump / HYD prsmmpu002x Magnetic Pickup Unit / APU prscctl001x Controller / APU	5.6680E-4 2.1373E-3 1.3333E-2	10 1.5 1.5	5.65E-03 3.20E-03 1.98E-02	3.58E-07
440)	mchcrp003x Circulation Pump / HYD prscctl002x Controller / APU prsmmpu001x Magnetic Pickup Unit / APU	1.3333E-2 2.1373E-3 5.6680E-4	1.5 1.5 10	1.98E-02 3.20E-03 5.65E-03	3.58E-07
441)	prsmmpu003x Magnetic Pickup Unit / APU mchcrp002x Circulation Pump / HYD prscctl001x Controller / APU	2.1373E-3 5.6680E-4 1.3333E-2	1.5 10 1.5	3.20E-03 5.65E-03 1.98E-02	3.58E-07
442)	prscctl003x Controller / APU mchcrp002x Circulation Pump / HYD prsmmpu001x Magnetic Pickup Unit / APU	1.3333E-2 5.6680E-4 2.1373E-3	1.5 10 1.5	1.98E-02 5.65E-03 3.20E-03	3.58E-07
443)	prsggv003x Gas Generator Valve Module / APU mchcrp002x Circulation Pump / HYD dpsmfa001x Multiplexer Demultiplexer / Flight Aft	1.9960E-2 5.6680E-4 8.1633E-5	1.5 10 24	2.95E-02 5.65E-03 1.96E-03	3.27E-07
444)	mchcrp003x Circulation Pump / HYD prsggv001x Gas Generator Valve Module / APU dpsmfa002x Multiplexer Demultiplexer / Flight Aft	5.6680E-4 1.9960E-2 8.1633E-5	10 1.5 24	5.65E-03 2.95E-02 1.96E-03	3.27E-07
445)	prsggv003x Gas Generator Valve Module / APU mchcrp001x Circulation Pump / HYD dpsmfa002x Multiplexer Demultiplexer / Flight Aft	1.9960E-2 5.6680E-4 8.1633E-5	1.5 10 24	2.95E-02 5.65E-03 1.96E-03	3.27E-07
446)	mchcrp002x Circulation Pump / HYD prsggv001x Gas Generator Valve Module / APU dpsmfa003x Multiplexer Demultiplexer / Flight Aft	5.6680E-4 1.9960E-2 8.1633E-5	10 1.5 24	5.65E-03 2.95E-02 1.96E-03	3.27E-07
447)	prsggv002x Gas Generator Valve Module / APU mchcrp001x Circulation Pump / HYD dpsmfa003x Multiplexer Demultiplexer / Flight Aft	1.9960E-2 5.6680E-4 8.1633E-5	1.5 10 24	2.95E-02 5.65E-03 1.96E-03	3.27E-07
448)	mchcrp003x Circulation Pump / HYD prsggv002x Gas Generator Valve Module / APU dpsmfa001x Multiplexer Demultiplexer / Flight Aft	5.6680E-4 1.9960E-2 8.1633E-5	10 1.5 24	5.65E-03 2.95E-02 1.96E-03	3.27E-07
449)	mchrsr003x Reservoir / HYD mchwsb002x Water Spray Boiler mchmnp001x Main Pump / HYD	4.3300E-5 1.2195E-2 9.6153E-3	24 1.167 2.183	1.04E-03 1.41E-02 2.08E-02	3.05E-07
450)	mchwsb003x Water Spray Boiler mchmnp002x Main Pump / HYD mchrsr001x Reservoir / HYD	1.2195E-2 9.6153E-3 4.3300E-5	1.167 2.183 24	1.41E-02 2.08E-02 1.04E-03	3.05E-07
451)	mchmnp003x Main Pump / HYD mchwsb002x Water Spray Boiler mchrsr001x Reservoir / HYD	9.6153E-3 1.2195E-2 4.3300E-5	2.183 1.167 24	2.08E-02 1.41E-02 1.04E-03	3.05E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
452)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
453)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
454)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
455)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
456)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
457)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
458)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
459)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
460)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
461)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
462)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
463)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
464)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.87E-07
	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
	dpsmof004x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	
465)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.87E-07
	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
	dpsmof002x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	
466)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.87E-07
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
	dpsmof004x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	
467)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.87E-07
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
	dpsmof001x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	
468)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
469)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
470)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
471)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
472)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
473)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
474)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
475)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
476)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
477)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
478)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
479)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
480)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gnccsa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
481)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
482)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
483)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
484)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
485)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
486)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
487)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
488)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
489)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
490)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
491)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
492)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
493)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
494)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
495)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
496)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
497)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
498)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
499)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
500)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
501)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.58E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
502)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
503)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
504)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
505)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
506)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
507)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
508)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
509)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
510)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
511) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
512) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
513) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
514) prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
515) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
516) mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
517) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
518) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
519) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
520) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
521) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.30E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
522) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
523) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
524) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
525) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
526) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
527) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
528) prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
529) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
530) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
prstcl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
531) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
532) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
533) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
534) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
535) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
536) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
537) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
538) prstcl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
539) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prstcl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	



# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
540) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
541) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
542) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
543) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
544) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.95E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
545) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.95E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
546) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.95E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
547) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
548) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
549) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
550) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
551) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03	
552) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03	1.94E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
553) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.91E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
554) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.91E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
555) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.91E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
556) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
557) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
558) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.87E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
559) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
560) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.87E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
561) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.87E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
562) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
563) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.85E-07
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
564) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.85E-07
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
565) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
566) prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
567) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.85E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
568) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
569) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
570)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
571)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
572)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
573)	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
574)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
575)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
576)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
577)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
578)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
579)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
580)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
581)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
582)	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
583)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
584)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
585)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
586)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
587)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
588)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
589)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
590)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
591)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
592)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
593)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
594)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
595)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
596)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.65E-07
	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
	gnrcrh00rx Rotation Hand Controller (RHC)	3.3333E-5	24	8.00E-04	
597)	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.65E-07
	dnccdu00rx Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	
	gnrcrh001x Rotation Hand Controller (RHC)	3.3333E-5	24	8.00E-04	
598)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
599) dpgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
600) dpgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
601) dpgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
602) dpgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
603) dpgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
604) dpgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.56E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
605) dpmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.56E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
606) dpmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
607) dpmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
608) dpmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
609) dpmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.56E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
610) dpmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
611) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
612) prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
613) prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
614) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
615) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
616) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
617) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
618) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
619) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.32E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
620) gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
621) gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.32E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
622) gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
623) gncasa001x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
624) gncasa002x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.32E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
625) gncasa003x	Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
prsmfu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
626) dpmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
prsmfu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
627) dpmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpmfa002x	Multiplexer Demultiplexer / Flight Aft	2.1373E-3	1.5	3.20E-03	1.30E-07
prsmfu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
628)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
629)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
630)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
631)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
632)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
633)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
634)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
635)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
636)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
637)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
638)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
639)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
640)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
641)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
642)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
643)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
644)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
645)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
646)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
647)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
648)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
649)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
650)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
651)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
652)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
653)	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
654)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
655)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
656)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
657)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07

## The Model - Cut-Set Report

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
658)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
659)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
660)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
661)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
662)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
663)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
664)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
665)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
666)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
667)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
668)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
669)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
670)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
671)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
672)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
673)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
674)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
675)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
676)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
677)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
678)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
679)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
680)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
681)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
682)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
683)	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
684)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
685)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
686)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
687)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
688)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
689)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
690)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
691)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
692)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
693)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
694)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
695)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
696)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
697)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
698)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
699)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
69)	FLT-D Pilot Head-Down Position				See MIST Rpt.
	1) prsflc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
	2) prsflc002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
	3) dncspi001x Surface Position Indicator (SPI)	6.7790E-4	24	1.61E-02<	1.61E-02
	4) dncddu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
	5) dnchsi001x Horizontal Situation Indicator (HSI)	2.4340E-4	24	5.82E-03	5.82E-03
	6) dncami001x Alpha Mach Indicator / Electronics (AMI/E)	1.6080E-4	24	3.85E-03	3.85E-03
	7) dncavf001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03<	1.83E-03
	8) dncavv001x Altitude Vertical Velocity Indicator / Electronics (AVVI/E)	7.3800E-5	24	1.77E-03	1.77E-03
	9) dncadi001x Attitude Director Indicator (ADI)	4.3400E-5	24	1.04E-03<	1.04E-03
	10) dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
70)	FLT-U Pilot Head-Up Position				See MIST Rpt.
71)	R-I-ELEV Right Inboard Elevon				See MIST Rpt.
	1) mchelv001x Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03<	2.95E-03
	2) prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
3)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
4)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
5)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
6)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
7)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
8)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
9)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
10)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
11)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
12)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.23E-05

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
13)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
14)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
15)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
16)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
17)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
18)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
19)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
20)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
21)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
22)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
23)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
24)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
25)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	8.65E-06
26)	mchwsb003x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
27)	mchmnp003x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
28)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
29)	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	8.65E-06
	mchmnp001x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
30)	prsggv003x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02<	8.65E-06
	mchmnp002x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	8.65E-06
31)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
32)	prsc1003x Controller / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
33)	mchmnp003x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
34)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
35)	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsc1001x Controller / APU	1.2195E-2	1.167	1.41E-02<	
36)	mchwsb003x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
37)	prsggv003x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
38)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
39)	prsc1003x Controller / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
40)	prsc1003x Controller / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	8.15E-06
41)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU				

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
42) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
43) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
44) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
45) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
46) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
47) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.10E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
48) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
49) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
50) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
51) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
52) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
53) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
54) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
55) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
56) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
57) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
58) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
59) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
60) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
61) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
62) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
63) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
64) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
65) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
66) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
67) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
68) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
69) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
70) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	



# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
71)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
72)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
73)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
74)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
75)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.88E-06
76)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
77)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
78)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
79)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
80)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
81)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
82)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
83)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
84)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
85)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
86)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
87)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
88)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
89)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
90)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
91)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
92)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
93)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
94)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
95)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
96)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.80E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
97)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
98)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
99)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
100)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.74E-06

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
101)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
102)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
103)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
104)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
105)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
106)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
107)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
108)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
109)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
110)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
111)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
112)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
113)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
114)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
115)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
116)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
117)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
118)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
119)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
120)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
121)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
122)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
123)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
124)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
125)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
126)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
127)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
128)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
129)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	

## The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
130)	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
131)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
132)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
133)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
134)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
135)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
136)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
137)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
138)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
139)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
140)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
141)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
142)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
143)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
144)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
145)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
146)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
147)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
148)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
149)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
150)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
151)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
152)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
153)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
154)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
155)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
156)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
157)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
158)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
159)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
160)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
161)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
162)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
163)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
164)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
165)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
166)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
167)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
168)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
169)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
170)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
171)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
172)	prsmu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
173)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	prsmu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
174)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
175)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
176)	prsmu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
177)	prsmu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
178)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsmu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
179)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	prsmu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
180)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
181)	prsmu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
182)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsmu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
183)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	prsmu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
184)	prsmu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
185)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
186)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
187)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
188)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
189)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
190)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
191)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
192)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
193)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
194)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
195)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
196)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
197)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
198)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
199)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
200)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
201)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
202)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
203)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
204)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
205)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
206)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
207)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
208)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
209)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
210)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
211)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
212)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
213)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
214)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmf001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
215)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmf002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
216)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
217)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
218)	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
219)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
220)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
221)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
222)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
223)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
224)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
225)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
226)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
227)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
228)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
229)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
230)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
231)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
232)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
233)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
234)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
235)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
236)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
237)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
238)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
239)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
240)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
241)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
242)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
243)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
244)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
245)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
246)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	

## CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
247)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.193	2.08E-02<	
248)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
249)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
250)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
251)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
252)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
253)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
254)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
255)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	5.65E-03	
256)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
257)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
258)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
259)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
260)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
261)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
262)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
263)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
264)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
265)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
266)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
267)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
268)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
269)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
270)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
271)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
272)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
273)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
274)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
275)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
276)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
277)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
278)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
279)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
280)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
281)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
282)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
283)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
284)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
285)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
286)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
287)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
288)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
289)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
290)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
291)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpagpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
292)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpagpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
293)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
294)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
295)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
296)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
297)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
298)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
299)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
300)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
301)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
302)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
303)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
304)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
305)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	



# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
306)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
307)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
308)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
309)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
310)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	4.21E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
311)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	4.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
312)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
313)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
314)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
315)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
316)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
317)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
318)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
319)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
320)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
321)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.76E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
322)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
323)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
324)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
325)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
326)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
327)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
328)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
329)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
330)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
331)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
332)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
333)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
334)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
335)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
336)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
337)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
338)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
339)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
340)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
341)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
342)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
343)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
344)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
345)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
346)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
347)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
348)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
349)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
350)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
351)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
352)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
353)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
354)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
355)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
356)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
357)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
358)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
359)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
360)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
361)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
362)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
363)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
364)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
365)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
366)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
367)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
368)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
369)	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
370)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
371)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
372)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
373)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
374)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
375)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
376)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
377)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
378)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
379)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
380)	prsggv003x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	1.94E-07
	mchftr002x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
381)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
382)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
383)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
384)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
385)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
386)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
387)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
388)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
389)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
390)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
391)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
392)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
393)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
394) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
395) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
396) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
397) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
398) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
399) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
400) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
401) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
402) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
403) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
404) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
405) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmppu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
406) prsmppu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
407) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
prsmppu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
408) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
409) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
410) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
411) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
412) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
413) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
414) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
415) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
416) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
417) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
418) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
419) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
420) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmppu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
421) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmppu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
422) prsmppu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	

## CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
423)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
424)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
425)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
426)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
427)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
428)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
<b>72) R-O-ELEV Right Outboard Elevon</b>					
				<b>See MIST Rpt.</b>	
1)	mchelv00rox Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
2)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
3)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
4)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
5)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
6)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
7)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
8)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
9)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
10)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
11)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
12)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
13)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
14)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
15)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
16)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
17)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
18)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
19)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
20)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
21)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
22)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
23)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
24)	prsf1c001x Fuel Cell (FLC or FC)	9.0400E-4	24	2.16E-02	1.01E-05

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
25)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
26)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
27)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
28)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
29)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
30)	prsggv003x Gas Generator Valve Module / APU	9.6153E-3	2.183	2.08E-02<	8.65E-06
	mchmnp002x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
31)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	8.65E-06
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
32)	prsc1l003x Controller / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp002x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	8.57E-06
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
33)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	prsc1l002x Controller / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
34)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1l001x Controller / APU	9.6153E-3	2.183	2.08E-02<	
35)	prsggv003x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsc1l001x Controller / APU	1.2195E-2	1.167	1.41E-02<	
36)	mchwsb003x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsc1l002x Controller / APU	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
37)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
38)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1l001x Controller / APU	1.9960E-2	1.5	2.95E-02	
39)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
40)	prsc1l003x Controller / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
41)	prsc1l003x Controller / APU	1.2195E-2	1.167	1.41E-02<	8.15E-06
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
42)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
43)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	mchmnp002x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1l001x Controller / APU	9.6153E-3	2.183	2.08E-02<	
44)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
45)	mchmnp003x Main Pump / HYD	1.3333E-2	1.5	1.98E-02	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
46)	mchmnp003x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	6.10E-06
	mchwsb002x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
47)	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
48)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
49)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
50)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
51)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
52)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
53)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
54) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
55) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
56) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
57) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
58) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
59) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
60) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
61) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
62) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
63) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
64) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
65) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
66) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
67) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
68) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
69) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
70) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
71) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
72) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
73) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
74) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
75) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
76) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
77) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
78) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
79) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
80) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
81) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
82) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	

CUTSET REPORT

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
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83)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
84)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
85)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
86)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
87)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
88)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
89)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
90)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
91)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
92)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
93)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
94)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
95)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
96)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.80E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
97)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
98)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
99)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
100)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
101)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
102)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
103)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
104)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
105)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
106)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
107)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
108)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
109)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
110)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
111)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
112)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06



The Model - Cut-Set Report

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
113)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
114)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
115)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
116)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
117)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
118)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
119)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
120)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
121)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
122)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
123)	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
124)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
125)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
126)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
127)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
128)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
129)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
130)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
131)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
132)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
133)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
134)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
135)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
136)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
137)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
138)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
139)	prsggv003x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
140)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
141)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
142) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmppu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
143) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmppu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
144) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
prsmppu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
145) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
prsmppu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
146) prsmppu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
147) prsmppu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
148) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
149) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
150) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
151) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
152) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
153) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
154) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
155) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
156) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
157) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
158) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
159) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
160) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
161) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
162) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
163) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
164) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
165) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
166) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
167) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
168) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
169) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
170) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
171)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
172)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
173)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
174)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
175)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
176)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
177)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
178)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
179)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
180)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
181)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
182)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
183)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
184)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
185)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
186)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
187)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
188)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
189)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
190)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
191)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
192)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
193)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
194)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
195)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
196)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
197)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
198)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
199)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
200)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
201)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
202)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
203)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
204)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
205)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
206)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
207)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
208)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
209)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
210)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
211)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
212)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
213)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
214)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
215)	dpamfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpamfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
216)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
217)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
218)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
219)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
220)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
221)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
222)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
223)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
224)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
225)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
226)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
227)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
228)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
229)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

The Model - Cut-Set Report

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
230)	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
231)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
232)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
233)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
234)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
235)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
236)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
237)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
238)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
239)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
240)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
241)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
242)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
243)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
244)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
245)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
246)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
247)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
248)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
249)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
250)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
251)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
252)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
253)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
254)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	6.36E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
255)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
256)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
257)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
258)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	6.07E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
259)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
260)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
261)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
262)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
263)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
264)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
265)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
266)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
267)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
268)	prsmpu003x Magnetic Pickup Unit / APU	5.2160E-4	12.183	6.33E-03	5.98E-07
	mchftr002x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	
269)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
270)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
271)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
272)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
273)	prsmpu003x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	
	prsggv002x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp001x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
274)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmpu002x Magnetic Pickup Unit / APU	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	
275)	mchcrp003x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
276)	prsggv003x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsmpu002x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	2.1373E-3	1.5	3.20E-03	
277)	prsmpu003x Magnetic Pickup Unit / APU	5.6680E-4	10	5.65E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
278)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	5.6680E-4	10	5.65E-03	
279)	mchftr003x Filter / HYD	2.1373E-3	1.5	3.20E-03	
	mchwsb002x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp001x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	
280)	mchftr003x Filter / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	5.6680E-4	10	5.65E-03	
281)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.6680E-4	10	5.65E-03	
282)	mchwsb003x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchftr002x Filter / HYD	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
283)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchftr002x Filter / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
284)	mchcrp003x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchwsb002x Water Spray Boiler	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	1.2195E-2	1.167	1.41E-02<	
285)	mchcrp003x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	4.50E-07
	mchwsb002x Water Spray Boiler	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	
286)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
287)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
288)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07

The Model - Cut-Set Report

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
289)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
290)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
291)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
292)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
293)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
294)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
295)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
296)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
297)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
298)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
299)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
300)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
301)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
302)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
303)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
304)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
305)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
306)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
307)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
308)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
309)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
310)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
311)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
312)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
313)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
314)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
315)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
316)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
317)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
318) prsct1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
318) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
318) prsct1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
318) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
319) prsct1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
319) prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
319) mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
320) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
320) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
320) mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
321) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
321) prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
321) mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
322) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
322) prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
322) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
323) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
323) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
323) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
324) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
324) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
324) prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
325) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
325) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
325) prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
326) prsct1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
326) prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
326) mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
327) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
327) prsct1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
327) mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
328) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
328) prsct1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
328) prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
329) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
329) prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
329) prsct1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
330) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
330) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
330) prsct1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
331) prsct1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
331) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
331) prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
332) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
332) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
332) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
333) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
333) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
333) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
334) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
334) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
334) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
335) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
335) mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
335) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
336) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
336) mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
336) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
337) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
337) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
337) mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
338) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
338) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
338) prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
339) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
339) prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
339) prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
340) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
340) prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
340) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
341) prsct1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
341) mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
341) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
342) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
342) prsct1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
342) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
343) prsct1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
343) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
343) mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
344) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
344) mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
344) prsct1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
345) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
345) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
345) prsct1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
346) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
346) prsct1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
346) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	



## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
347)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
348)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
349)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
350)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
351)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
352)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.86E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
353)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
354)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
355)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
356)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
357)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
358)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.55E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
359)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
360)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
361)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
362)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
363)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.13E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
364)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
365)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
366)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gnccasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
367)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gnccasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
368)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
369)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
370)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
371)	prstct1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
372)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prstct1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
373)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prstct1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
374)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
375)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
376)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
377)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
378)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
379)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
380)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
381)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
382)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
383)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
384)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
385)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
386)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
387)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
388)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
389)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
390)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
391)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
392)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
393)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
394)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
395)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
396)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
397)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
398)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
399)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
400)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
401)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
402)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
403)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
404)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
405)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
406)	prsmphu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmphu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
407)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	prsmphu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
408)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
409)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
410)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
411)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
412)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
413)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
414)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.16E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
415)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
416)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
417)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
418)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
419)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	1.16E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
420)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmphu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
421)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmphu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
422)	prsmphu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
423)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
	prsmphu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
424)	prsmphu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
425)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
	prsmphu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
426)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmphu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
427)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
	prsmphu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
428)	prsmphu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
73)	<b>RADAR-ALT Radar Altimeter</b>				<b>See MIST Rpt.</b>
1)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
2)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
3)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
4)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.46E-05
	cntrdr002x Radar Altimeter	2.0830E-4	5.5	1.14E-03	
5)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.46E-05
	cntrdr001x Radar Altimeter	2.0830E-4	5.5	1.14E-03	
6)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
7)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
8)	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	3.35E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
9)	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	2.09E-06
	cntrdr001x Radar Altimeter	2.0830E-4	5.5	1.14E-03	
10)	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	2.09E-06
	cntrdr002x Radar Altimeter	2.0830E-4	5.5	1.14E-03	
11)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
	dpsmff001x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
12)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
	dpsmff002x Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
13)	cntrdr002x Radar Altimeter	2.0830E-4	5.5	1.14E-03	1.30E-06
	cntrdr001x Radar Altimeter	2.0830E-4	5.5	1.14E-03	
14)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.09E-06
	cntrdr001x Radar Altimeter	2.0830E-4	5.5	1.14E-03	
15)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.09E-06
	cntrdr002x Radar Altimeter	2.0830E-4	5.5	1.14E-03	
16)	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
74) RGA	Rate Gyro Assembly				See MIST Rpt.
1)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
2)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.40E-06
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gnrcga003x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
3)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.40E-06
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gnrcga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
4)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.40E-06
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gnrcga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
5)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.40E-06
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gnrcga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
6)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.40E-06
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gnrcga002x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
7)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.40E-06
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gnrcga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
8)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
9)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
10)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
11)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa004x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
12)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa004x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
13)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
14)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
15)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
16)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
17)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc004x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
18)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
19)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
20)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	gnrcga003x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
	gnrcga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
21)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	gnrcga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
	gnrcga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
22)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	gnrcga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
	gnrcga003x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
23)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	gnrcga002x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
	gnrcga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03	
24)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07

The Model - Cut-Set Report

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	gncrga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
	gncrga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
25)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	gncrga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
	gncrga002x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
26)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
27)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa004x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
28)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa004x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga003x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
29)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
30)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa004x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga002x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
31)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
32)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga002x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
33)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
34)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga003x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
35)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
36)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa004x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga001x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
37)	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.27E-07
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	gncrga004x Orbiter Rate Gyro Assembly (RGA)	1.2500E-4	24	3.00E-03<	
75)	<b>RHC-L Rotation Hand Controller - Left</b>				<b>See MIST Rpt.</b>
1)	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2)	dpsmof004x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	1.39E-03
3)	gncrhc001x Rotation Hand Controller (RHC)	3.3333E-5	24	8.00E-04	8.00E-04
4)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
5)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
76)	<b>RHC-R Rotation Hand Controller - Right</b>				<b>See MIST Rpt.</b>
1)	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2)	dpsmof004x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	1.39E-03
3)	gncrhc001x Rotation Hand Controller (RHC)	3.3333E-5	24	8.00E-04	8.00E-04
4)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
5)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
77)	<b>RPTA-L Rudder Pedal Transducer Assembly - Left</b>				<b>See MIST Rpt.</b>
1)	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2)	dpsmof001x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	1.39E-03
3)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
4)	gncrpt001x Rudder Pedal Transducer Assembly (RPTA)	7.1000E-6	5.5	3.90E-05<	3.90E-05
78)	<b>RPTA-R Rudder Pedal Transducer Assembly - Right</b>				<b>See MIST Rpt.</b>
1)	dnccdu001x Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2)	dpsmof002x Multiplexer Demultiplexer / Operational Instrumentation Forward	5.8000E-5	24	1.39E-03	1.39E-03
3)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
4)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
5)	gncrpt001x Rudder Pedal Transducer Assembly (RPTA)	7.1000E-6	5.5	3.90E-05<	3.90E-05
79)	<b>RUDDER</b>				<b>See MIST Rpt.</b>
1)	mchrsv001x Servo Valve / RUD	4.8309E-3	.8	3.86E-03	3.86E-03
2)	mchrud001x Rudder PDU (RUD)	4.8309E-3	.8	3.86E-03	3.86E-03
3)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
4)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
5)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
6)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.81E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
7)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
8)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
9)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
10)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
11)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
12)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
13)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
14)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
15)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
16)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
17)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
18)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
19)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
20)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
21)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
22)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
23)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
24)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
25)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
26)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
27)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
28)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
29)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
30)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
31)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
32)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
33)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
34)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
35)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06

## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
36)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
37)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
38)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
39)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
40)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
41)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
42)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
43)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
44)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
45)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
46)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
47)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
48)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
49)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
50)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
51)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
52)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
53)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
54)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
55)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
56)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
57)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
58)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
59)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
60)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
61)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
62)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
63)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
64)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
65) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
66) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
67) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
68) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	4.14E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
69) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	4.14E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
70) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
71) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.94E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
72) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
73) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
74) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
75) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
76) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
77) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.88E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
78) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
79) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
80) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
81) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
82) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
83) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
84) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
85) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
86) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.47E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
87) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.47E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
88) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
89) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
90) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
91) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
92) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
93) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	



## CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
94)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
95)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
96)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
97)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.80E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
98)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
99)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
100)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
101)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
102)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
103)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.74E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
104)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
105)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
106)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
107)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
108)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
109)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
110)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
111)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
112)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
113)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
114)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
115)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
116)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
117)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
118)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
119)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
120)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
121)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
122)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
123)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
124)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
125)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
126)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
127)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
128)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
129)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
130)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
131)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
132)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
133)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
134)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
135)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
136)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
137)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
138)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
139)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
140)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
141)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
142)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
143)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
144)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
145)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
146)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	practl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
147)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	practl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
148)	practl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
149)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
150)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
151)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
152)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

The Model - Cut-Set Report

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
153)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
154)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
155)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
156)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
157)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
158)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
159)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
160)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
161)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
162)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
163)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
164)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
165)	mchcrp003x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
166)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
167)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
168)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
169)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
170)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
171)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
172)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
173)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
174)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
175)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	mchmnp002x Main Pump / HYD	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
176)	prsggv003x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
177)	prsggv003x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
178)	mchwsb003x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
179)	prsmmpu003x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	1.33E-06
180)	prsmmpu003x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	1.33E-06
181)	mchwsb003x Water Spray Boiler	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU				

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
182)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
183)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
184)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
185)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
186)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
187)	prscrl003x Controller / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	2.195E-2	1.167	1.41E-02<	1.26E-06
188)	mchwsb003x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
189)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
190)	mchftr003x Filter / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	1.25E-06
191)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl002x Controller / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
192)	prsmmpu003x Magnetic Pickup Unit / APU	1.3333E-2	1.5	1.98E-02	
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
193)	prscrl003x Controller / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	5.2160E-4	12.183	6.33E-03	1.18E-06
194)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	1.18E-06
195)	mchftr003x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	1.9960E-2	1.5	2.95E-02	1.18E-06
196)	prsggv003x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	1.2195E-2	1.167	1.41E-02<	1.12E-06
197)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	1.12E-06
198)	mchwsb003x Water Spray Boiler	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
199)	mchcrp003x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	5.6680E-4	10	5.65E-03	1.06E-06
200)	mchcrp003x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
201)	prsggv003x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
202)	mchftr003x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
203)	mchftr003x Filter / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	1.06E-06
204)	mchcrp003x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	1.9960E-2	1.5	2.95E-02	1.06E-06
205)	prsggv003x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
206)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
207)	prsggv003x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
208)	mchcrp003x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
209)	mchmnp003x Main Pump / HYD	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	9.38E-07
210)	prsmmpu003x Magnetic Pickup Unit / APU	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	9.38E-07
211)	mchmnp003x Main Pump / HYD				

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
212)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
213)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
214)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
215)	prsfllc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfllc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
216)	prsfllc001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfllc003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
217)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
218)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
219)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
220)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
221)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
222)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
223)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
224)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
225)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
226)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
227)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
228)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
229)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
230)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
231)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
232)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
233)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
234)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
235)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
236)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
237)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
238)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
239)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
240)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
241)	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
242)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
243)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
244)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
245)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
246)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
247)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
248)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
249)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
250)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
251)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
252)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
253)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
254)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
255)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
256)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
257)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
258)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
259)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
260)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
261)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
262)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
263)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
264)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
265)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
266)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
267)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
268)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
269)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
270)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
271)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
272)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
273)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
274)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
275)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
276)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
277)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
278)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
279)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
280)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
281)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
282)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
283)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
284)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
285)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
286)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
287)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
288)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
289)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
290)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
291)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
292)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
293)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
294)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
295)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
296)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
297)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
298)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
299)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
300)	mchrsr002x Reservoir / HYD mchwsb001x Water Spray Boiler mchrsr003x Reservoir / HYD prscrl002x Controller / APU mchmnp001x Main Pump / HYD	4.3300E-5 1.2195E-2 4.3300E-5 1.3333E-2 9.6153E-3	24 1.167 24 1.5 2.183	1.04E-03 1.41E-02 1.04E-03 1.98E-02 2.08E-02	  4.28E-07  4.28E-07
301)	mchmnp003x Main Pump / HYD prscrl002x Controller / APU mchrsr001x Reservoir / HYD	9.6153E-3 1.3333E-2 4.3300E-5	2.183 1.5 24	2.08E-02 1.98E-02 1.04E-03	4.28E-07   
302)	mchmnp003x Main Pump / HYD mchrsr002x Reservoir / HYD prscrl001x Controller / APU	9.6153E-3 4.3300E-5 1.3333E-2	2.183 24 1.5	2.08E-02 1.04E-03 1.98E-02	4.28E-07   
303)	mchrsr003x Reservoir / HYD mchmnp002x Main Pump / HYD prscrl001x Controller / APU	4.3300E-5 9.6153E-3 1.3333E-2	24 2.183 1.5	1.04E-03 2.08E-02 1.98E-02	4.28E-07  4.28E-07
304)	prscrl003x Controller / APU mchmnp002x Main Pump / HYD mchrsr001x Reservoir / HYD	1.3333E-2 9.6153E-3 4.3300E-5	1.5 2.183 24	1.98E-02 2.08E-02 1.04E-03	4.28E-07   
305)	prscrl003x Controller / APU mchrsr002x Reservoir / HYD mchmnp001x Main Pump / HYD	1.3333E-2 4.3300E-5 9.6153E-3	1.5 24 2.183	1.98E-02 1.04E-03 2.08E-02	4.28E-07   
306)	prsmmpu003x Magnetic Pickup Unit / APU mchftr002x Filter / HYD mchmnp001x Main Pump / HYD	2.1373E-3 5.2160E-4 9.6153E-3	1.5 12.183 2.183	3.20E-03 6.33E-03 2.08E-02	4.21E-07  4.21E-07
307)	mchftr003x Filter / HYD prsmmpu002x Magnetic Pickup Unit / APU mchmnp001x Main Pump / HYD	5.2160E-4 2.1373E-3 9.6153E-3	12.183 1.5 2.183	6.33E-03 3.20E-03 2.08E-02	4.21E-07  4.21E-07
308)	mchftr003x Filter / HYD mchmnp002x Main Pump / HYD prsmmpu001x Magnetic Pickup Unit / APU	5.2160E-4 9.6153E-3 2.1373E-3	12.183 2.183 1.5	6.33E-03 2.08E-02 3.20E-03	4.21E-07  4.21E-07
309)	prsmmpu003x Magnetic Pickup Unit / APU prsmmpu003x Magnetic Pickup Unit / APU mchmnp002x Main Pump / HYD mchftr001x Filter / HYD	2.1373E-3 9.6153E-3 5.2160E-4 9.6153E-3	1.5 2.183 12.183 2.183	3.20E-03 2.08E-02 6.33E-03 2.08E-02	4.21E-07   4.21E-07
310)	mchmnp003x Main Pump / HYD mchftr002x Filter / HYD prsmmpu001x Magnetic Pickup Unit / APU	9.6153E-3 5.2160E-4 2.1373E-3	2.183 12.183 1.5	2.08E-02 6.33E-03 3.20E-03	4.21E-07  4.21E-07
311)	mchmnp003x Main Pump / HYD prsmmpu002x Magnetic Pickup Unit / APU mchftr001x Filter / HYD	9.6153E-3 2.1373E-3 5.2160E-4	2.183 1.5 12.183	2.08E-02 3.20E-03 6.33E-03	4.21E-07  4.08E-07
312)	prscrl003x Controller / APU mchrsr002x Reservoir / HYD prscrl001x Controller / APU	1.3333E-2 4.3300E-5 1.3333E-2	1.5 24 1.5	1.98E-02 1.04E-03 1.98E-02	4.08E-07  4.08E-07
313)	prscrl003x Controller / APU prscrl002x Controller / APU mchrsr001x Reservoir / HYD	1.3333E-2 1.3333E-2 4.3300E-5	1.5 1.5 24	1.98E-02 1.98E-02 1.04E-03	4.08E-07  4.08E-07
314)	mchrsr003x Reservoir / HYD prscrl002x Controller / APU prscrl001x Controller / APU	4.3300E-5 1.3333E-2 1.3333E-2	24 1.5 1.5	1.04E-03 1.98E-02 1.98E-02	4.08E-07  4.01E-07
315)	mchftr003x Filter / HYD prscrl002x Controller / APU prsmmpu001x Magnetic Pickup Unit / APU	5.2160E-4 1.3333E-2 2.1373E-3	12.183 1.5 1.5	6.33E-03 1.98E-02 3.20E-03	4.01E-07  4.01E-07
316)	prscrl003x Controller / APU mchftr002x Filter / HYD prsmmpu001x Magnetic Pickup Unit / APU	1.3333E-2 5.2160E-4 2.1373E-3	1.5 12.183 1.5	1.98E-02 6.33E-03 3.20E-03	4.01E-07  4.01E-07
317)	mchftr003x Filter / HYD prsmmpu002x Magnetic Pickup Unit / APU prscrl001x Controller / APU	5.2160E-4 2.1373E-3 1.3333E-2	12.183 1.5 1.5	6.33E-03 3.20E-03 1.98E-02	4.01E-07  4.01E-07
318)	prsmmpu003x Magnetic Pickup Unit / APU mchftr002x Filter / HYD prscrl001x Controller / APU	2.1373E-3 5.2160E-4 1.3333E-2	1.5 12.183 1.5	3.20E-03 6.33E-03 1.98E-02	4.01E-07  4.01E-07
319)	prsmmpu003x Magnetic Pickup Unit / APU prscrl002x Controller / APU mchftr001x Filter / HYD	2.1373E-3 1.3333E-2 5.2160E-4	1.5 1.5 12.183	3.20E-03 1.98E-02 6.33E-03	4.01E-07  4.01E-07
320)	prscrl003x Controller / APU prsmmpu002x Magnetic Pickup Unit / APU mchftr001x Filter / HYD	1.3333E-2 2.1373E-3 5.2160E-4	1.5 1.5 12.183	1.98E-02 3.20E-03 6.33E-03	4.01E-07  3.76E-07
321)	prsmmpu003x Magnetic Pickup Unit / APU mchmnp002x Main Pump / HYD mchcrp001x Circulation Pump / HYD	2.1373E-3 9.6153E-3 5.6680E-4	1.5 2.183 10	3.20E-03 2.08E-02 5.65E-03	3.76E-07  3.76E-07
322)	mchmnp003x Main Pump / HYD prsmmpu002x Magnetic Pickup Unit / APU mchcrp001x Circulation Pump / HYD	9.6153E-3 5.6680E-4 5.6680E-4	2.183 10 10	2.08E-02 5.65E-03 5.65E-03	3.76E-07  3.76E-07
323)	mchcrp003x Circulation Pump / HYD prsmmpu002x Magnetic Pickup Unit / APU mchmnp001x Main Pump / HYD	5.6680E-4 2.1373E-3 9.6153E-3	10 1.5 2.183	5.65E-03 3.20E-03 2.08E-02	3.76E-07  3.76E-07
324)	prsmmpu003x Magnetic Pickup Unit / APU mchcrp002x Circulation Pump / HYD mchmnp001x Main Pump / HYD	2.1373E-3 5.6680E-4 9.6153E-3	1.5 10 2.183	3.20E-03 5.65E-03 2.08E-02	3.76E-07  3.76E-07
325)	mchcrp003x Circulation Pump / HYD mchmnp002x Main Pump / HYD prsmmpu001x Magnetic Pickup Unit / APU	5.6680E-4 9.6153E-3 2.1373E-3	10 2.183 1.5	5.65E-03 2.08E-02 3.20E-03	3.76E-07  3.76E-07
326)	mchmnp003x Main Pump / HYD mchcrp002x Circulation Pump / HYD prsmmpu001x Magnetic Pickup Unit / APU	9.6153E-3 5.6680E-4 2.1373E-3	2.183 10 1.5	2.08E-02 5.65E-03 3.20E-03	3.76E-07  3.58E-07
327)	prscrl003x Controller / APU prsmmpu002x Magnetic Pickup Unit / APU mchcrp001x Circulation Pump / HYD	1.3333E-2 2.1373E-3 5.6680E-4	1.5 1.5 10	1.98E-02 3.20E-03 5.65E-03	3.58E-07  3.58E-07
328)	prsmmpu003x Magnetic Pickup Unit / APU prscrl002x Controller / APU	2.1373E-3 1.3333E-2	1.5 1.5	3.20E-03 1.98E-02	3.58E-07  



The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
329)	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
330)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
331)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
332)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
333)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
334)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
335)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
336)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
337)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
338)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
339)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
340)	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
341)	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmpu002x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
342)	prsc1003x Controller / APU	4.3300E-5	24	1.04E-03	
	mchrsr002x Reservoir / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	2.90E-07
343)	prsc1003x Controller / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	4.3300E-5	24	1.04E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	2.90E-07
344)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.90E-07
345)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
346)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.90E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	2.90E-07
347)	mchrsr003x Reservoir / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
348)	prsmpu003x Magnetic Pickup Unit / APU	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	2.86E-07
349)	prsmpu003x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	1.2195E-2	1.167	1.41E-02	2.86E-07
350)	mchwsb003x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
	prsmpu002x Magnetic Pickup Unit / APU	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
351)	mchftr003x Filter / HYD	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
352)	prsmpu001x Magnetic Pickup Unit / APU	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchftr003x Filter / HYD	2.1373E-3	1.5	3.20E-03	
	prsmpu002x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.86E-07
353)	mchwsb003x Water Spray Boiler	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02	2.55E-07
354)	mchwsb003x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
	prsmpu002x Magnetic Pickup Unit / APU	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	2.1373E-3	1.5	3.20E-03	2.55E-07
355)	prsmpu003x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb002x Water Spray Boiler	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	1.2195E-2	1.167	1.41E-02	2.55E-07
356)	mchwsb003x Water Spray Boiler	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	2.1373E-3	1.5	3.20E-03	
	prsmpu001x Magnetic Pickup Unit / APU	5.6680E-4	10	5.65E-03	2.55E-07
357)	mchcrp003x Circulation Pump / HYD	2.1373E-3	1.5	3.20E-03	
	prsmpu002x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler				

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
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358)	prsmipu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
359)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
360)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
361)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
362)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
363)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
364)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
	prsmipu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
365)	prsmipu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
366)	prsmipu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	prsmipu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
367)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
368)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
369)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
370)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
371)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
372)	prsetl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
	prsmipu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
373)	prsmipu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prsetl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmipu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
374)	prsmipu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prsmipu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsetl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
375)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
376)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
377)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
378)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
379)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
380)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
381)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
382)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
383)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
384)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
385)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
386)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
387)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07

# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
388)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
389)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
390)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
391)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
392)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
393)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
394)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
395)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
396)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
397)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
398)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
399)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
400)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
401)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
402)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
403)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
404)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
405)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
406)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
407)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
408)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
409)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
410)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
411)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
412)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
413)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
414)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
415)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
416)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	

# Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
417) mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
418) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
419) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
420) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
421) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
422) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
423) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
424) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
425) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
426) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
427) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
428) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
429) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
80) SBTC-L	Speed Brake / Thrust Control - Left				See MIST Rpt.
1) dncddu001x	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
3) gncsbt001x	Speed Brake / Thrust Control (SBTC)	1.4200E-5	6	8.52E-05	8.52E-05
81) SBTC-R	Speed Brake / Thrust Control - Right				See MIST Rpt.
1) dncddu00rx	Display Driver Unit (DDU)	4.0000E-4	24	9.55E-03	9.55E-03
2) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
3) gncsbt00rx	Speed Brake / Thrust Control (SBTC)	1.4200E-5	6	8.52E-05	8.52E-05
82) SPOBKK	Speed Brake				See MIST Rpt.
1) mchssv001x	Servo Valve / SBR	4.8309E-3	.8	3.86E-03	3.86E-03
2) mchabr001x	Speed Brake PDU (SBR)	4.8309E-3	.8	3.86E-03	3.86E-03
3) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.57E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
4) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
5) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
6) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
7) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
8) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
9) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
10) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
11) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.28E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
12) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
13) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
14)	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
15)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
16)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
17)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
18)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
19)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
20)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
21)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
22)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
23)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
24)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
25)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
26)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.00E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
27)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
28)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
29)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
30)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
31)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
32)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
33)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
34)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
35)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
36)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
37)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
38)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
39)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
40)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
41)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
42)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
43)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
44)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
45)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
46)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
47)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.10E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
48)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
49)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
50)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.86E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
51)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
52)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
53)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
54)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
55)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
56)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
57)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
58)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
59)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
60)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
61)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
62)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
63)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
64)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
65)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
66)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
67)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
68)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
69)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
70)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
71)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
72)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06

## The Model - Cut-Set Report

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
73)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
74)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
75)	mchftr003x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	prsggv001x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	
76)	mchmnp003x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
77)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
78)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
79)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
80)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
81)	mchftr003x Filter / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
82)	prsc1003x Controller / APU	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	2.95E-02		2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.70E-06
83)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
84)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsggv002x Gas Generator Valve Module / APU	2.95E-02		2.95E-02	
	prsc1001x Controller / APU	1.9960E-2	1.5	1.98E-02	
85)	prsggv003x Gas Generator Valve Module / APU	1.3333E-2	1.5	2.95E-02	3.47E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
86)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
87)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.47E-06
	mchmnp002x Main Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.47E-06
88)	prsggv003x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	9.6153E-3	2.183	2.08E-02<	
89)	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
90)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.47E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
91)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.30E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
92)	mchcrp003x Circulation Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
93)	prsggv003x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	1.3333E-2	1.5	1.98E-02	3.30E-06
94)	prsc1003x Controller / APU	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.30E-06
95)	prsggv003x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	5.6680E-4	10	5.65E-03	3.30E-06
96)	mchcrp003x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.2195E-2	1.167	1.41E-02<	2.80E-06
97)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	2.78E-06
98)	prsmppu003x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
99)	prsggv003x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	
	prsmppu002x Magnetic Pickup Unit / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.78E-06
100)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	2.1373E-3	1.5	3.20E-03	
	prsmppu001x Magnetic Pickup Unit / APU	9.6153E-3	2.183	2.08E-02<	2.74E-06
101)	mchmnp003x Main Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD				

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
102)	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
103)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.74E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
104)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
105)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
106)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
107)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
108)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
109)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.63E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
110)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
111)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
112)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
113)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
114)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
115)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
116)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
117)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
118)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
119)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
120)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
121)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
122)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
123)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
124)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
125)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
126)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
127)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
128)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
129)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
130)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	



## CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
131) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
132) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
133) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
134) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
135) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
136) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
137) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
138) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
139) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
140) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
141) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
142) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
143) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
144) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
145) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
146) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
147) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
148) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
149) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
150) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
151) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
152) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
153) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
154) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
155) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
156) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
157) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
158) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
159) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
160) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
161)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
162)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
163)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
164)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
165)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
166)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
167)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
168)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
169)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
170)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
171)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
172)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
173)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
174)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
175)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
176)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
177)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
178)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
179)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
180)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
181)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
182)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
183)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
184)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
185)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
186)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
187)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
188)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
189)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

# The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
190)	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.26E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
191)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
192)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
193)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
194)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
195)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
196)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
197)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
198)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
199)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.12E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
200)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
201)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
202)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
203)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
204)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
205)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
206)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
207)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
208)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
209)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
210)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	9.38E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
211)	prsmppu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
212)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	9.38E-07
	prsmppu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
213)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
214)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsmppu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
215)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
216)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
217)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03	
218)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

## Orbiter Autoland Reliability Analysis

CUTSET REPORT

12-08-92

2:33

Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
219)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
220)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
221)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
222)	prsmptu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
223)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmptu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
224)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
225)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmptu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
226)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
227)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
228)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
229)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
230)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
231)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
232)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
233)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
234)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
235)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
236)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
237)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
238)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
239)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
240)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
241)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
242)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
243)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
244)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
245)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
246)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
247)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
248)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07

The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
249)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
250)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
251)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
252)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
253)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
254)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
255)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
256)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
257)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
258)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
259)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
260)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
261)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
262)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
263)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
264)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
265)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
266)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
267)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
268)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
269)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
270)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
271)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
272)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
273)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
274)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
275)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
276)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
277)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
278) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
279) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
280) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
281) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
282) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
283) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
284) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
285) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
286) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
287) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
288) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
289) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
290) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
291) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
292) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
293) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
294) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
295) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
296) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
297) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
298) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
299) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
300) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
301) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
302) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
303) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
304) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
305) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
306) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
307)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
308)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
309)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
310)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
311)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
312)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
313)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
314)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
315)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
316)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
317)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
318)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
319)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
320)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
321)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
322)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
323)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
324)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
325)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
326)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
327)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
328)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
329)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
330)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
331)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
332)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
333)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
334)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
335)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
336)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
337)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
338)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
339)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
340)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
341)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
342)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
343)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
344)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
345)	prscctl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
346)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscctl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
347)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
	prscctl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
348)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
349)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
350)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
351)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
352)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
353)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
354)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
355)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
356)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
357)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
358)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
359)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
360)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
361)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
362)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
363)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
364)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
365)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	



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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
366)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
367)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
368)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
369)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
370)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
371)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
372)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
373)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
374)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	5.6680E-4	10	5.65E-03	2.02E-07
375)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
376)	mchftr003x Filter / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
377)	mchcrp003x Circulation Pump / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	1.94E-07
378)	prsggv003x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	4.3300E-5	24	1.04E-03<	
	mchrsr001x Reservoir / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
379)	mchftr003x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	4.3300E-5	24	1.04E-03<	
	mchrsr001x Reservoir / HYD	1.9960E-2	1.5	2.95E-02	1.94E-07
380)	prsggv003x Gas Generator Valve Module / APU	4.3300E-5	24	1.04E-03<	
	mchrsr002x Reservoir / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
381)	mchftr003x Filter / HYD	4.3300E-5	24	1.04E-03<	
	mchrsr002x Reservoir / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	4.3300E-5	24	1.04E-03<	1.94E-07
382)	mchrsr003x Reservoir / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
383)	mchrsr003x Reservoir / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr002x Filter / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	1.80E-07
384)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	1.73E-07
385)	prsggv003x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	4.3300E-5	24	1.04E-03<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
386)	mchrsr003x Reservoir / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	1.73E-07
387)	prsggv003x Gas Generator Valve Module / APU	4.3300E-5	24	1.04E-03<	
	mchrsr002x Reservoir / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
388)	mchcrp003x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	4.3300E-5	24	1.04E-03<	1.73E-07
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
389)	mchrsr003x Reservoir / HYD	5.6680E-4	10	5.65E-03	
	mchcrp002x Circulation Pump / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	5.6680E-4	10	5.65E-03	1.73E-07
390)	mchcrp003x Circulation Pump / HYD	4.3300E-5	24	1.04E-03<	
	mchrsr002x Reservoir / HYD	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.2195E-2	1.167	1.41E-02<	1.44E-07
391)	mchwsb003x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
392)	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu002x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	1.44E-07
393)	prsmmpu003x Magnetic Pickup Unit / APU	1.2195E-2	1.167	1.41E-02<	
	mchwsb002x Water Spray Boiler	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	5.2160E-4	12.183	6.33E-03	1.37E-07
394)	mchftr003x Filter / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	4.3300E-5	24	1.04E-03<	
	mchrsr001x Reservoir / HYD				

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
395) mchrsr003x Reservoir / HYD		4.3300E-5	24	1.04E-03<	1.37E-07
mchftr002x Filter / HYD		5.2160E-4	12.183	6.33E-03	
mchmnp001x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	
396) mchmnp003x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	1.37E-07
mchrsr002x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
mchftr001x Filter / HYD		5.2160E-4	12.183	6.33E-03	
397) mchftr003x Filter / HYD		5.2160E-4	12.183	6.33E-03	1.37E-07
mchrsr002x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
mchmnp001x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	
398) mchrsr003x Reservoir / HYD		4.3300E-5	24	1.04E-03<	1.37E-07
mchmnp002x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	
mchftr001x Filter / HYD		5.2160E-4	12.183	6.33E-03	
399) mchmnp003x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	1.37E-07
mchftr002x Filter / HYD		5.2160E-4	12.183	6.33E-03	
mchrsr001x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
400) mchftr003x Filter / HYD		5.2160E-4	12.183	6.33E-03	1.30E-07
prscrl002x Controller / APU		1.3333E-2	1.5	1.98E-02	
mchrsr001x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
401) mchrsr003x Reservoir / HYD		4.3300E-5	24	1.04E-03<	1.30E-07
prscrl002x Controller / APU		1.3333E-2	1.5	1.98E-02	
mchftr001x Filter / HYD		5.2160E-4	12.183	6.33E-03	
402) prscrl003x Controller / APU		1.3333E-2	1.5	1.98E-02	1.30E-07
mchftr002x Filter / HYD		5.2160E-4	12.183	6.33E-03	
mchrsr001x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
403) prscrl003x Controller / APU		1.3333E-2	1.5	1.98E-02	1.30E-07
mchrsr002x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
mchftr001x Filter / HYD		5.2160E-4	12.183	6.33E-03	
404) mchftr003x Filter / HYD		5.2160E-4	12.183	6.33E-03	1.30E-07
mchrsr002x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
prscrl001x Controller / APU		1.3333E-2	1.5	1.98E-02	
405) mchrsr003x Reservoir / HYD		4.3300E-5	24	1.04E-03<	1.30E-07
mchftr002x Filter / HYD		5.2160E-4	12.183	6.33E-03	
prscrl001x Controller / APU		1.3333E-2	1.5	1.98E-02	
406) mchftr003x Filter / HYD		5.2160E-4	12.183	6.33E-03	1.28E-07
mchftr002x Filter / HYD		5.2160E-4	12.183	6.33E-03	
prsmppu001x Magnetic Pickup Unit / APU		2.1373E-3	1.5	3.20E-03	
407) mchftr003x Filter / HYD		5.2160E-4	12.183	6.33E-03	1.28E-07
prsmppu002x Magnetic Pickup Unit / APU		2.1373E-3	1.5	3.20E-03	
mchftr001x Filter / HYD		5.2160E-4	12.183	6.33E-03	
408) prsmppu003x Magnetic Pickup Unit / APU		2.1373E-3	1.5	3.20E-03	1.28E-07
mchftr002x Filter / HYD		5.2160E-4	12.183	6.33E-03	
mchftr001x Filter / HYD		5.2160E-4	12.183	6.33E-03	
409) mchmnp003x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	1.22E-07
mchrsr002x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
mchcrp001x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
410) mchrsr003x Reservoir / HYD		4.3300E-5	24	1.04E-03<	1.22E-07
mchmnp002x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	
mchcrp001x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
411) mchrsr003x Reservoir / HYD		4.3300E-5	24	1.04E-03<	1.22E-07
mchcrp002x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
mchmnp001x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	
412) mchmnp003x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	1.22E-07
mchcrp002x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
mchrsr001x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
413) mchcrp003x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	1.22E-07
mchrsr002x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
mchmnp001x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	
414) mchcrp003x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	1.22E-07
mchmnp002x Main Pump / HYD		9.6153E-3	2.183	2.08E-02<	
mchrsr001x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
415) mchrsr003x Reservoir / HYD		4.3300E-5	24	1.04E-03<	1.16E-07
prscrl002x Controller / APU		1.3333E-2	1.5	1.98E-02	
mchcrp001x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
416) prscrl003x Controller / APU		1.3333E-2	1.5	1.98E-02	1.16E-07
mchrsr002x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
mchcrp001x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
417) mchcrp003x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	1.16E-07
mchrsr002x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
prscrl001x Controller / APU		1.3333E-2	1.5	1.98E-02	
418) mchrsr003x Reservoir / HYD		4.3300E-5	24	1.04E-03<	1.16E-07
mchcrp002x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
prscrl001x Controller / APU		1.3333E-2	1.5	1.98E-02	
419) mchcrp003x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	1.16E-07
prscrl002x Controller / APU		1.3333E-2	1.5	1.98E-02	
mchrsr001x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
420) prscrl003x Controller / APU		1.3333E-2	1.5	1.98E-02	1.16E-07
mchcrp002x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
mchrsr001x Reservoir / HYD		4.3300E-5	24	1.04E-03<	
421) mchftr003x Filter / HYD		5.2160E-4	12.183	6.33E-03	1.14E-07
mchcrp002x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
prsmppu001x Magnetic Pickup Unit / APU		2.1373E-3	1.5	3.20E-03	
422) mchcrp003x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	1.14E-07
mchftr002x Filter / HYD		5.2160E-4	12.183	6.33E-03	
prsmppu001x Magnetic Pickup Unit / APU		2.1373E-3	1.5	3.20E-03	
423) prsmppu003x Magnetic Pickup Unit / APU		2.1373E-3	1.5	3.20E-03	1.14E-07
mchftr002x Filter / HYD		5.2160E-4	12.183	6.33E-03	
mchcrp001x Circulation Pump / HYD		5.6680E-4	10	5.65E-03	
424) mchftr003x Filter / HYD		5.2160E-4	12.183	6.33E-03	1.14E-07

# The Model - Cut-Set Report

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
prsmmp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
425) prsmmp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
426) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
prsmmp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
427) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmmp001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
428) prsmmp003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
429) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
prsmmp002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
83) SPI	Surface Position Indicator (SPI)				See MIST Rpt.
1) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.16E-02
2) dncspi001x	Surface Position Indicator (SPI)	6.7790E-4	24	1.61E-02	1.61E-02
3) dpsmff001x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.83E-03
4) dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.60E-04
84) SURFACES	Aerodynamic Control Surfaces				See MIST Rpt.
1) mchbdf001x	Body Flap PDU (BDF)	7.2463E-3	.8	5.78E-03	5.78E-03
2) mchrud001x	Rudder PDU (RUD)	4.8309E-3	.8	3.86E-03	3.86E-03
3) mchrsv001x	Servo Valve / RUD	4.8309E-3	.8	3.86E-03	3.86E-03
4) mchsbz001x	Speed Brake PDU (SBR)	4.8309E-3	.8	3.86E-03	3.86E-03
5) mchssv001x	Servo Valve / SBR	4.8309E-3	.8	3.86E-03	3.86E-03
6) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
7) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
8) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
9) mchelv010x	Elevon Actuator (ELV)	2.9585E-3	1	2.95E-03	2.95E-03
10) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.95E-02
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
11) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
12) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
13) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.81E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
14) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
15) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
16) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.72E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
17) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
18) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.28E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
19) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.28E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
20) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
21) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
22) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.23E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
23) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
24) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
25) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
26) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.21E-05
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
27) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.21E-05
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
28)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.21E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
29)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
30)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
31)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-05
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
32)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
33)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	9.00E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
34)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
35)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.65E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
36)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
37)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
38)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.65E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
39)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.65E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
40)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.57E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
41)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
42)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.57E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
43)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
44)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
45)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
46)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.24E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
47)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.24E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
48)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	8.24E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
49)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
50)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.15E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
51)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	8.15E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
52)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.76E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
53)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
54)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	6.10E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
55)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	6.10E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
56)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
57)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	5.86E-06

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
58)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
59)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
60)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
61)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
62)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
63)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.81E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
64)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.81E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
65)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
66)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
67)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.53E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
68)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
69)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
70)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.51E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
71)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
72)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
73)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.92E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
74)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
75)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
76)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.14E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
77)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
78)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
79)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.94E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
80)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
81)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
82)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.88E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
83)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
84)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
85)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.88E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
86)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.70E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
87) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
88) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
89) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	3.70E-06
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
90) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
91) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
92) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
93) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
94) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
95) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
96) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
97) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
98) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
99) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
100) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
101) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
102) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
103) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
104) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
105) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
106) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
107) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
108) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
109) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
110) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
111) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
112) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
113) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
114) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
115) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
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116)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
117)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
118)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
119)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
120)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.61E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
121)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
122)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.61E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
123)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.48E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
124)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
125)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.48E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
126)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
127)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.44E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
128)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.44E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
129)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
130)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
131)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
132)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
133)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.35E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
134)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.35E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
135)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
136)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
137)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
138)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.33E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
139)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
140)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.33E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
141)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
142)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.22E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
143)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.22E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
144)	prsmpu003x Magnetic Pickup Unit / APU	3.1373E-3	1.5	3.20E-03	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
145)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
146)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
147)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
148)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.96E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
149)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.96E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
150)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
151)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
152)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
153)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
154)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.87E-06
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
155)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.87E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
156)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
157)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
158)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
159)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
160)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.86E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
161)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.86E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
162)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
163)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
164)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
165)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.77E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
166)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
167)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.77E-06
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
168)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
169)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
170)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.71E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
171)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
172)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
173)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
174)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.66E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	



CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
175) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.66E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
176) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.66E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
177) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
178) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
179) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
180) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.58E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
181) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.58E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
182) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.58E-06
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
183) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
184) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.38E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
185) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.38E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
186) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
187) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
188) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.33E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
189) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
190) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.33E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
191) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.33E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
192) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
193) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
194) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
195) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
196) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.32E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
197) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.32E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
198) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
199) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
200) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-06
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
201) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
202) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.25E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
203) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.25E-06
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
204)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
205)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
206)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
207)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
208)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.20E-06
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
209)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.20E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
210)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
211)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.18E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
212)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.18E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
213)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
214)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
215)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
216)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.14E-06
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
217)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
218)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.14E-06
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
219)	mchwbs003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
220)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.12E-06
	mchwbs002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwbs001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
221)	mchwbs003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.12E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwbs001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
222)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
223)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
224)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
225)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.06E-06
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
226)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.06E-06
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
227)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.06E-06
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
228)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
229)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	9.42E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
230)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.42E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
231)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwbs001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
232)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwbs001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
233)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	9.38E-07

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
234)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
235)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	9.38E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
236)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	9.38E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
237)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
238)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	9.14E-07
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
239)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
240)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
241)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	9.05E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
242)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1t001x Controller / APU	1.3333E-2	1.5	1.98E-02	
243)	prsc1t003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
244)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1t001x Controller / APU	1.3333E-2	1.5	1.98E-02	
245)	prsc1t003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.93E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
246)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	8.93E-07
	prsc1t002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
247)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.93E-07
	prsc1t002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
248)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
249)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
250)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.48E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
251)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
252)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
253)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.35E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
254)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
255)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
256)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	8.33E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
257)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
258)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
259)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
260)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
261)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	8.15E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
262)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	8.15E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
263)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
264)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
265)	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	8.07E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
266)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
267)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
268)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	8.07E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
269)	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
270)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
271)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.93E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
272)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
273)	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
274)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	7.68E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
275)	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
276)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
277)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
278)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.44E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
279)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
280)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	7.44E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
281)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
282)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
283)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
284)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
285)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	7.08E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
286)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	7.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
287)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
288)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.64E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
289)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.64E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
290)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
291)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
292)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
293)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
294)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.38E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
295)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.38E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
296)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
297)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
298)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	6.36E-07
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
299)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
300)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.32E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
301)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	6.32E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
302)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
303)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
304)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
305)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
306)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	6.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
307)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	6.07E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
308)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
309)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
310)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmmp001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
311)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.98E-07
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
312)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.98E-07
	prsmmp002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
313)	prsmmp003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.98E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
314)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
315)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
316)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
317)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.89E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
318)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
319)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.89E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
320)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
321)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
322)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
323)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
324)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.75E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
325)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	5.75E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
326)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
327)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
328)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.65E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
329)	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
330)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
331)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
332)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
333)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.61E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
334)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.61E-07
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
335)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
336)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
337)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
338)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
339)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.47E-07
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
340)	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	5.47E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
341)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
342)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
343)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.33E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
344)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
345)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
346)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	5.33E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
347)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
348)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
349)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
350)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	5.04E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
351) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	5.04E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
352) mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	5.04E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
353) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
354) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.50E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
355) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	4.50E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
356) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
357) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
358) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.50E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
359) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
360) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
361) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
362) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
363) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
364) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
365) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	4.33E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
366) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.33E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
367) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
368) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
369) prsctl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
370) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
371) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.28E-07
prsctl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
372) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.28E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsctl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
373) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
374) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
375) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	4.21E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
376) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
377) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.21E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
378) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.21E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
379) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
380)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
381)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	4.15E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
382)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
383)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
384)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	4.08E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
385)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
386)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
387)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.06E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
388)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
389)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
390)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	4.01E-07
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
391)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	4.01E-07
	prmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
392)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
393)	prmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	4.01E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
394)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
395)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
396)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
397)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
398)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.99E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
399)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.99E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
400)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
401)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
402)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
403)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
404)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
405)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.95E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
406)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
407)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
408)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.92E-07



## The Model - Cut-Set Report

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Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
409)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
410)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
411)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.90E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
412)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
413)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
414)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.76E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
415)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
416)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
417)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
418)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
419)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.76E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
420)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.76E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
421)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
422)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
423)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
424)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
425)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.66E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
426)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	3.66E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
427)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
428)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
429)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
430)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
431)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.58E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
432)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	3.58E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
433)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
434)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
435)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
436)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
437)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	3.27E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
438) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.27E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
439) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
440) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
441) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	3.05E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
442) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
443) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	3.05E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
444) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	3.05E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
445) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	3.02E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
446) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
447) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	3.02E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
448) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
449) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
450) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prscrl001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
451) prscrl003x	Controller / APU	1.3333E-2	1.5	1.98E-02	2.90E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
452) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.90E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
453) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.90E-07
prscrl002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
454) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
455) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
456) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
prsfllc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
457) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.86E-07
prsfllc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
458) prsfllc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.86E-07
prsfllc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsfllc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
459) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.86E-07
prsfllc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsfllc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
460) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.86E-07
mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
461) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
462) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
463) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	2.86E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
464) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.86E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
465)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.86E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
466)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
467)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
468)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
469)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
470)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.82E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
471)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.82E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
472)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
473)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
474)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
475)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
476)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.76E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
477)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.76E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
478)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
479)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
480)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
481)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
482)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
483)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.73E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
484)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
485)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
486)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
487)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
488)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.68E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
489)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.68E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
490)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
491)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
492)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
493)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	2.63E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
494)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
495)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.63E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
496)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.58E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
497)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.58E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
498)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
499)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
500)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.58E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
501)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.58E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
502)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
503)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
504)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
505)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
506)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.55E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
507)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.55E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	
508)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.54E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
509)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
510)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
511)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
512)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
513)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.46E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
514)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.46E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
515)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.30E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
516)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.30E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
517)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
518)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
519)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	2.30E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
520)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.30E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
521)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	

The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
522)	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
523)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.26E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
524)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
525)	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
526)	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
527)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
528)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.19E-07
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
529)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.19E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
530)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	2.13E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
531)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
532)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.13E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
533)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
534)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.10E-07
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
535)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
536)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	2.07E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
537)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	2.07E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
538)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	2.03E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
539)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsmmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
540)	prsmmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	2.03E-07
	prsmmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
541)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
542)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	2.02E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
543)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	2.02E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
544)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.02E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
545)	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.02E-07
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfic003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
546)	prsfic001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.02E-07
	prsfic002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
547)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
548)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
549)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.95E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	

CUTSET REPORT

12-08-92

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
550)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
551)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
552)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
553)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
554)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.94E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
555)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.94E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
556)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
557)	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
558)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
559)	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
560)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
561)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.94E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
562)	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	prsfcl003x Fuel Cell (FLC or FC)	1.3333E-2	1.5	1.98E-02	
	prsfcl001x Fuel Cell (FLC or FC)	9.6153E-3	2.183	2.08E-02<	
563)	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	mchmnp003x Main Pump / HYD	9.0900E-4	24	2.16E-02	
	prsfcl001x Fuel Cell (FLC or FC)	9.6153E-3	2.183	2.08E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	1.3333E-2	1.5	1.98E-02	
564)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsfcl003x Fuel Cell (FLC or FC)	1.3333E-2	1.5	1.98E-02	
	prsfcl001x Fuel Cell (FLC or FC)	9.6153E-3	2.183	2.08E-02<	
565)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchmnp003x Main Pump / HYD	9.0900E-4	24	2.16E-02	
	prsfcl002x Fuel Cell (FLC or FC)	9.6153E-3	2.183	2.08E-02<	
566)	prsfcl001x Fuel Cell (FLC or FC)	1.3333E-2	1.5	1.98E-02	1.92E-07
	mchmnp002x Main Pump / HYD	9.0900E-4	24	2.16E-02	
	prsfcl003x Fuel Cell (FLC or FC)	9.6153E-3	2.183	2.08E-02<	
	prsfcl001x Fuel Cell (FLC or FC)	1.3333E-2	1.5	1.98E-02	
567)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.92E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsfcl003x Fuel Cell (FLC or FC)	1.3333E-2	1.5	1.98E-02	
	mchwsb003x Water Spray Boiler	9.6153E-3	2.183	2.08E-02<	
568)	mchwsb003x Water Spray Boiler	9.0900E-4	24	2.16E-02	1.91E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc001x General Purpose Computer (PASS)	1.2195E-2	1.167	1.41E-02<	
569)	mchwsb003x Water Spray Boiler	4.0000E-5	24	9.60E-04	1.91E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc002x General Purpose Computer (PASS)	1.2195E-2	1.167	1.41E-02<	
570)	mchwsb002x Water Spray Boiler	4.0000E-5	24	9.60E-04	1.91E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	dpsgpc003x General Purpose Computer (PASS)	1.2195E-2	1.167	1.41E-02<	
571)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gnccasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
572)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gnccasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
573)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gnccasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
574)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.87E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gnccasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
575)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.87E-07

The Model - Cut-Set Report

CUTSET REPORT 12-08-92 2:33 Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
576)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.87E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
577)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.85E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
578)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
579)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.85E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
580)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.85E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
581)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
582)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.85E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
583)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
584)	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
585)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
586)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
587)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.85E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
588)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.85E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
589)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.83E-07
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
590)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.83E-07
	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
591)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.83E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
592)	mchcrp003x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.80E-07
	mchcrp002x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
593)	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
594)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
595)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
	prsggv002x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
596)	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
597)	prsggv003x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.79E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
598)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.79E-07
	prsggv001x Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
599)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
600)	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
	prsc1001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
601)	prsc1003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.76E-07
	prsc1002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
602)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.75E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03	
603)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02	1.75E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
604) dpmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.75E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
605) dpmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
606) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
607) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.75E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
608) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
609) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
610) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.73E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
611) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
612) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.73E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
613) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.73E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
614) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
615) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
616) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
617) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
618) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.60E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
619) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.60E-07
prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
620) mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.56E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
621) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
622) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.56E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
623) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
624) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.56E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
625) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.56E-07
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
dpmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
626) mchwsb003x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.44E-07
prsmptu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
prsmptu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
627) prsmptu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
mchwsb002x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
prsmptu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
628) prsmptu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.44E-07
prsmptu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchwsb001x	Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
629) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
630) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
631) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.37E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
632) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	



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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
633)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
634)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.37E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
635)	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
636)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
637)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
638)	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
639)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
640)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.37E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	prsfcl003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
641)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
642)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
643)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.32E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
644)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.32E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
645)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.32E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	gncasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
646)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.32E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gncasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
647)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
648)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
649)	prsmfu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
650)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
651)	prsmfu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.30E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
652)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.30E-07
	prsmfu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
653)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
654)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchrsr001x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
655)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	prscrl002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
656)	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
657)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.30E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
658)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.30E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	
	prscrl001x Controller / APU	1.3333E-2	1.5	1.98E-02	
659)	prsfcl001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	prsfcl002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	prscrl003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
660)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
661)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
662)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
663)	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	prsf1c003x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
664)	prsf1c001x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.30E-07
	prsf1c002x Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
665)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
666)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.28E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
667)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.28E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
668)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
669)	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp001x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
670)	mchftr003x Filter / HYD	5.2160E-4	12.183	6.33E-03	1.26E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
671)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr002x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc001x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
672)	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
673)	dpsgpc003x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.26E-07
	mchftr001x Filter / HYD	5.2160E-4	12.183	6.33E-03	
	dpsgpc002x General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
674)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gnccasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
675)	mchwsb003x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gnccasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
676)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gnccasa001x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
677)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gnccasa002x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
678)	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.26E-07
	mchwsb001x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	
	gnccasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
679)	mchwsb002x Water Spray Boiler	1.2195E-2	1.167	1.41E-02<	1.26E-07
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	gnccasa003x Aero Surface Amplifier (ASA)	1.0000E-4	4.5	4.50E-04	
680)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	
681)	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
682)	prsmpu003x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa002x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
683)	prsc1l002x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmpu001x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
684)	prsc1l003x Controller / APU	1.3333E-2	1.5	1.98E-02	1.24E-07
	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
	dpsmfa001x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
685)	prsmpu002x Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.24E-07
	prsc1l001x Controller / APU	1.3333E-2	1.5	1.98E-02	
	dpsmfa003x Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
686)	mchrsr003x Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
	mchmnp002x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
	mchcrp001x Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
687)	mchmnp003x Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
	mchrsr002x Reservoir / HYD	4.3300E-5	24	1.04E-03<	

## The Model - Cut-Set Report

CUTSET REPORT

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
688) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
689) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.22E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
690) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
691) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.22E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
692) mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
693) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
694) prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
695) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
696) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.20E-07
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
697) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.20E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
698) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
699) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
700) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
701) mchrsr003x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	1.16E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
702) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
mchrsr001x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
703) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.16E-07
mchrsr002x	Reservoir / HYD	4.3300E-5	24	1.04E-03<	
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
704) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
705) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
prsmmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
706) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
707) mchftr003x	Filter / HYD	5.2160E-4	12.183	6.33E-03	1.14E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
708) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.14E-07
prsmmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchftr001x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
709) prsmmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.14E-07
mchftr002x	Filter / HYD	5.2160E-4	12.183	6.33E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
710) prsggv003x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
711) prsggv002x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpsmfa001x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
712) prsggv001x	Gas Generator Valve Module / APU	1.9960E-2	1.5	2.95E-02	1.13E-07
dpsmfa003x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
dpsmfa002x	Multiplexer Demultiplexer / Flight Aft	8.1633E-5	24	1.96E-03<	
713) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
714) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
715) mchmnp003x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	1.13E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
716) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
mchmnp001x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02<	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	

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Truncation Limit: 1.00E-07

Module/Event Name	Description	Failure Rate	Exposure Time	Basic Event Prob.	Module / Cutset Prob.
717) mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	1.13E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
718) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.13E-07
mchmnp002x	Main Pump / HYD	9.6153E-3	2.183	2.08E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
719) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
720) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
721) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
722) prsc1003x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
723) mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.07E-07
prsc1001x	Controller / APU	1.3333E-2	1.5	1.98E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
724) prsc1002x	Controller / APU	1.3333E-2	1.5	1.98E-02	1.07E-07
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
725) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
prsmpu001x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
726) mchcrp003x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	1.02E-07
prsmpu002x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
727) prsmpu003x	Magnetic Pickup Unit / APU	2.1373E-3	1.5	3.20E-03	1.02E-07
mchcrp002x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
mchcrp001x	Circulation Pump / HYD	5.6680E-4	10	5.65E-03	
85) WNG	Weight on Nose Gear				See MIST Rpt.
86) WOW	Weight On Wheels				See MIST Rpt.
1) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	1.01E-05
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
2) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	8.54E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsmff003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
3) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	8.54E-07
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsmff002x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
4) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
87) WOW-L	Weight On Wheels - Left				See MIST Rpt.
1) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
2) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	3.95E-05
dpsmff003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
3) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
4) dpsmff003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	3.35E-06
dpsmff001x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
5) dpsmff003x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.76E-06
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
6) dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	1.76E-06
dpsmff001x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
7) dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
dpsgpc003x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
8) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	8.54E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsmff001x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	
9) prsflc001x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.48E-07
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
dpsgpc001x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
88) WOW-R	Weight On Wheels - Right				See MIST Rpt.
1) dpsmff002x	Multiplexer Demultiplexer / Flight Forward	7.6190E-5	24	1.83E-03	1.83E-03
2) prsflc002x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	4.67E-04
prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	
3) prsflc003x	Fuel Cell (FLC or FC)	9.0900E-4	24	2.16E-02	2.07E-05
dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	
4) dpsgpc002x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	9.22E-07
dpsgpc004x	General Purpose Computer (PASS)	4.0000E-5	24	9.60E-04	

**MIST Report  
and  
Reliability Block Diagrams**

MIST2 ver. 2.1

Dual-State Truth Table Report

12-01-92

9:46

<u>Module Name</u>	<u>Minumum</u>	<u>Maximum</u>	<u>Error</u>
AA	2.153E-05	1.998E-04	1.782E-04
ADI-L	1.101E-02	1.120E-02	1.968E-04
ADI-R	1.101E-02	1.119E-02	1.809E-04
ADTA	1.596E-03	1.721E-03	1.246E-04
AMI-L	3.459E-02	3.479E-02	2.016E-04
AMI-R	3.459E-02	3.478E-02	1.907E-04
APU-1	5.176E-02	5.176E-02	1.240E-06
APU-2	5.176E-02	5.176E-02	3.832E-07
APU-3	5.176E-02	5.176E-02	7.262E-08
ASA	1.147E-05	1.080E-04	9.657E-05
ASA-1	3.804E-03	3.900E-03	9.657E-05
ASA-2	3.805E-03	3.898E-03	9.225E-05
ASA-3	3.806E-03	3.890E-03	8.355E-05
ASA-4	3.806E-03	3.894E-03	8.787E-05
AUTOLAND	5.782E-02	5.798E-02	1.568E-04
AVVI-L	3.257E-02	3.277E-02	1.981E-04
AVVI-R	3.257E-02	3.276E-02	1.850E-04
BDYFLAP	6.765E-03	6.874E-03	1.086E-04
BRAKE	2.291E-02	2.292E-02	4.395E-06
CDR-D	6.094E-02	6.114E-02	2.016E-04
CDR-U	0.000E+00	2.028E-04	2.028E-04
DDU-L	1.001E-02	1.002E-02	1.358E-05
DDU-R	1.001E-02	1.003E-02	2.441E-05
ELEVONS	1.265E-02	1.275E-02	1.059E-04
FC-1	2.158E-02	2.158E-02	0.000E+00
FC-2	2.158E-02	2.158E-02	0.000E+00
FC-3	2.158E-02	2.158E-02	3.739E-06
FCS-1	9.588E-04	9.657E-04	6.952E-06
FCS-2	9.585E-04	9.664E-04	7.951E-06
FCS-3	9.582E-04	9.674E-04	9.236E-06
FCS-4	9.579E-04	9.687E-04	1.081E-05
GPC-1	9.588E-04	9.657E-04	6.952E-06
GPC-2	9.585E-04	9.664E-04	7.951E-06
GPC-3	9.582E-04	9.674E-04	9.236E-06
GPC-4	9.579E-04	9.687E-04	1.081E-05
HSI-L	3.650E-02	3.670E-02	1.996E-04
HSI-R	3.650E-02	3.669E-02	1.876E-04
HUD-L	2.212E-02	2.232E-02	2.028E-04
HUD-R	2.212E-02	2.232E-02	2.023E-04
HYD-1	9.647E-02	9.647E-02	3.497E-06
HYD-2	9.645E-02	9.646E-02	9.658E-07
HYD-3	9.646E-02	9.646E-02	2.846E-07
IMU	1.422E-05	1.710E-04	1.568E-04
L-I-ELEV	3.853E-03	3.956E-03	1.031E-04
L-O-ELEV	3.853E-03	3.958E-03	1.059E-04
MAIN-A	2.158E-02	2.158E-02	0.000E+00
MAIN-B	2.158E-02	2.158E-02	0.000E+00

MIST2 ver. 2.1

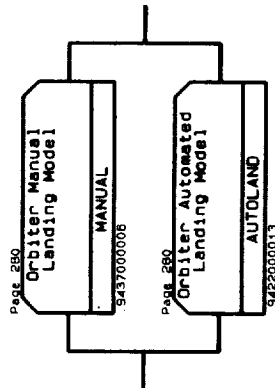
## Dual-State Truth Table Report

12-01-92

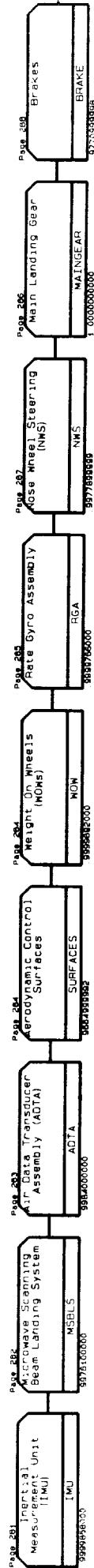
9:46

<u>Module Name</u>	<u>Minumum</u>	<u>Maximum</u>	<u>Error</u>
MAIN-C	2.158E-02	2.158E-02	3.739E-06
MAINGEAR	0.000E+00	4.395E-06	4.395E-06
MANUAL	5.626E-02	5.646E-02	2.028E-04
MDMFA-1	2.412E-03	2.456E-03	4.383E-05
MDMFA-2	2.414E-03	2.453E-03	3.866E-05
MDMFA-3	2.415E-03	2.449E-03	3.392E-05
MDMFA-4	2.415E-03	2.445E-03	2.962E-05
MDMFF-1	2.286E-03	2.306E-03	1.988E-05
MDMFF-2	2.288E-03	2.305E-03	1.705E-05
MDMFF-3	2.290E-03	2.296E-03	6.238E-06
MDMFF-4	2.291E-03	2.296E-03	5.172E-06
MDMOF-1	1.846E-03	2.010E-03	1.640E-04
MDMOF-2	1.845E-03	2.013E-03	1.674E-04
MDMOF-4	1.847E-03	2.006E-03	1.595E-04
MOTOR-L	4.593E-04	5.827E-04	1.234E-04
MOTOR-R	4.607E-04	5.841E-04	1.234E-04
MSBLS	2.394E-03	2.539E-03	1.447E-04
NWS	2.210E-03	2.236E-03	2.574E-05
NWS-1	3.690E-02	3.692E-02	2.574E-05
NWS-2	3.691E-02	3.692E-02	1.455E-05
ORBITER	5.491E-02	5.511E-02	2.028E-04
PLT-D	8.118E-02	8.138E-02	1.960E-04
PLT-U	0.000E+00	2.023E-04	2.023E-04
R-I-ELEV	3.854E-03	3.954E-03	1.007E-04
R-O-ELEV	3.854E-03	3.953E-03	9.848E-05
RADAR-ALT	6.252E-04	8.211E-04	1.960E-04
RGA	2.343E-05	1.019E-04	7.850E-05
RHC-L	1.259E-02	1.277E-02	1.794E-04
RHC-R	1.259E-02	1.275E-02	1.609E-04
RPTA-L	1.139E-02	1.156E-02	1.649E-04
RPTA-R	1.184E-02	1.201E-02	1.684E-04
RUDDER	8.586E-03	8.710E-03	1.234E-04
SBTC-L	1.007E-02	1.023E-02	1.618E-04
SBTC-R	1.007E-02	1.022E-02	1.576E-04
SPDBRK	8.588E-03	8.704E-03	1.156E-04
SPI	3.998E-02	4.016E-02	1.828E-04
SURFACES	3.348E-02	3.361E-02	1.234E-04
WNG	0.000E+00	7.917E-05	7.917E-05
WOW	1.078E-05	8.994E-05	7.917E-05
WOW-L	5.244E-04	6.036E-04	7.917E-05
WOW-R	2.301E-03	2.379E-03	7.883E-05

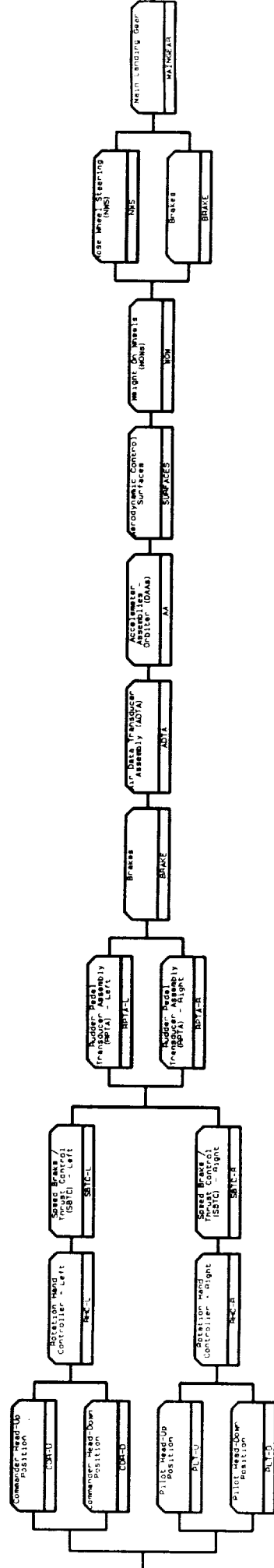
Module : ORBITER  
 MTBF : N/A  
 Exposure Time : 945099983  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Orbiter Landing  
 Description : Model



Module : AUTOLAND  
 MTBF : N/A  
 Exposure Time : 9422000013  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Orbiter Automated  
 Description : Landing Model

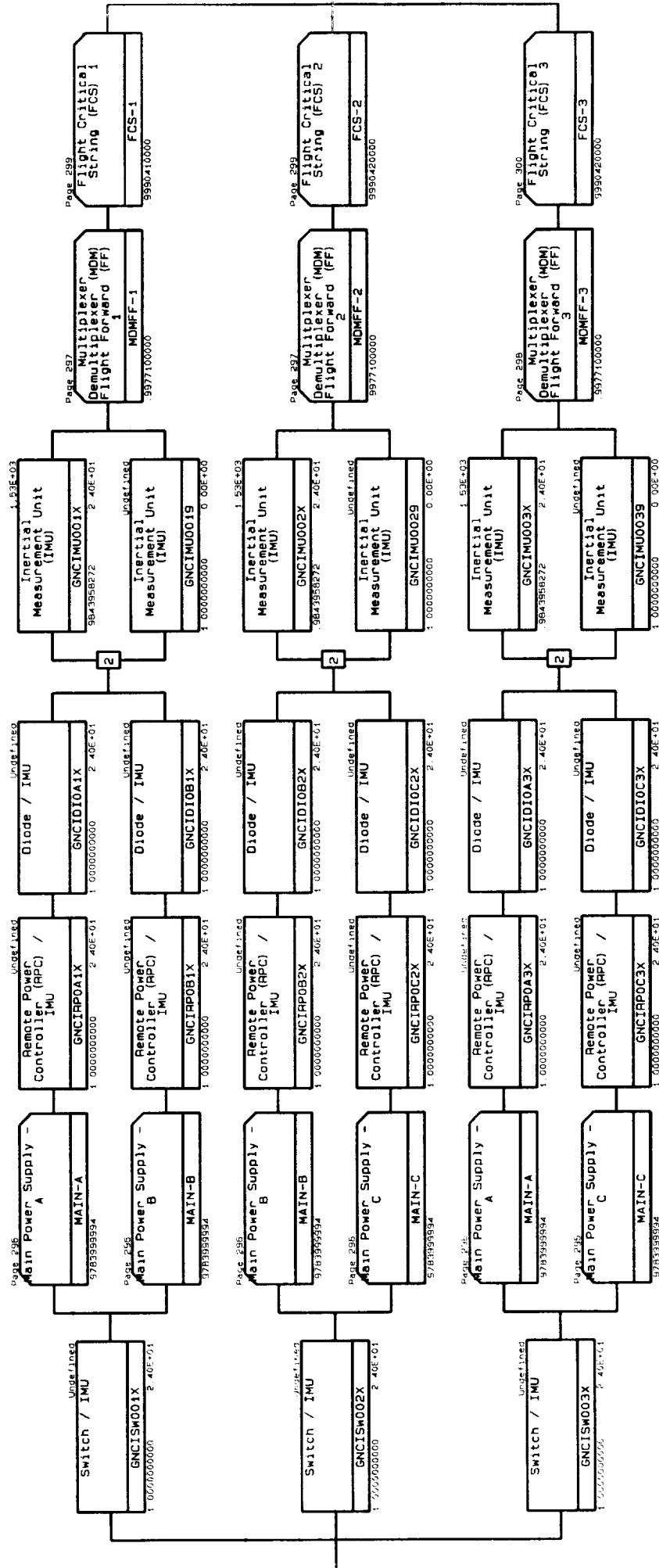


Module : AUTOLAND  
 MTBF : N/A  
 Exposure Time : 9422000013  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Orbiter Automated  
 Description : Landing Model

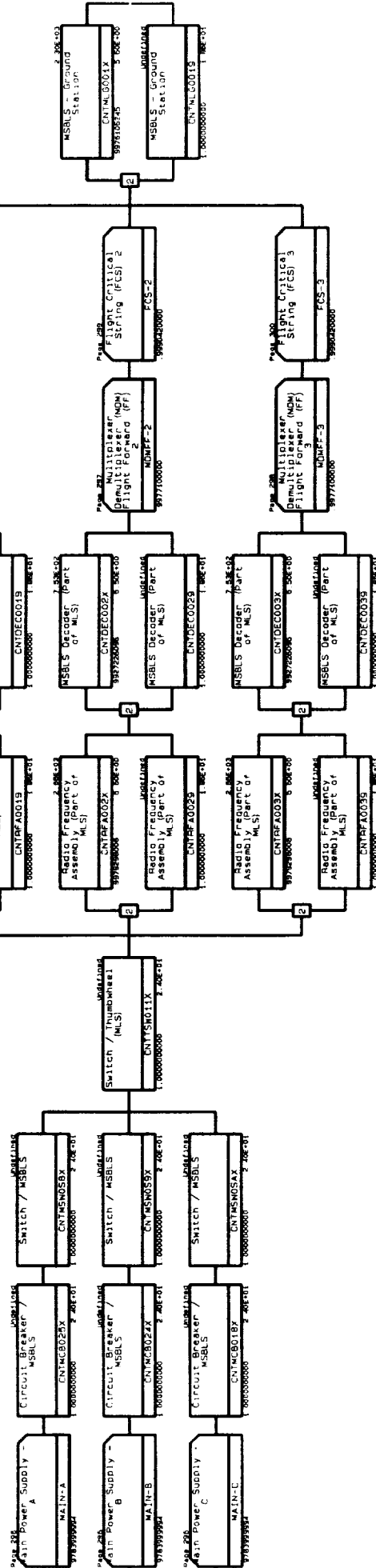


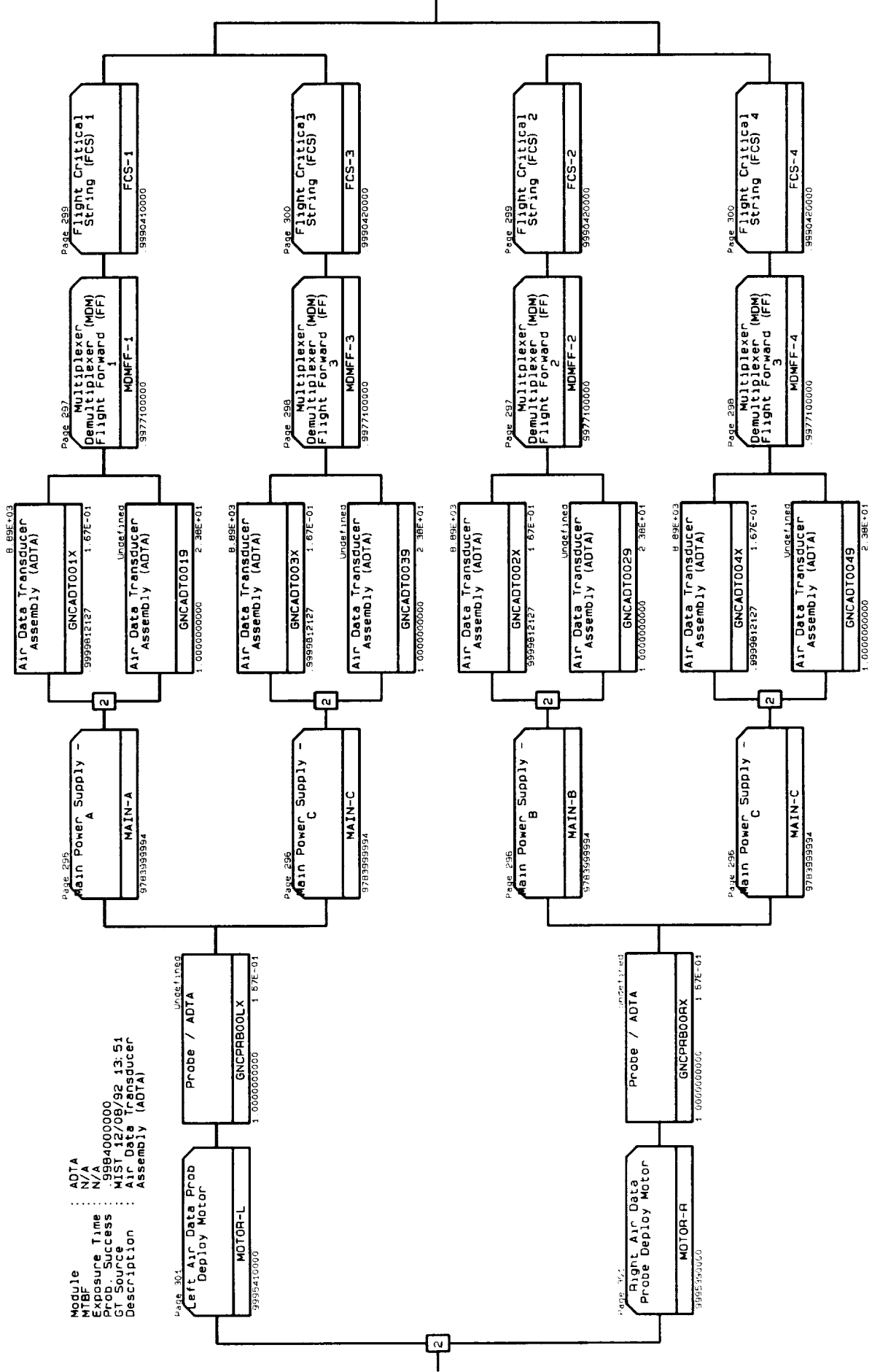


Module : IMU  
 MTBF : N/A  
 Exposure Time : 9999999999  
 Prob. Success : 1.0000000000  
 GI Source : Inertial  
 Description : Measurement Unit (IMU)

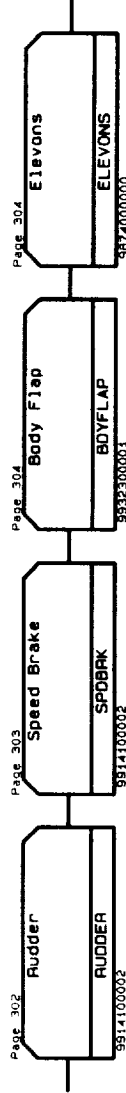


Module : MSBLS  
 Estimate time : N/A  
 Estimate : N/A  
 Date : 12/08/92 13:51  
 Source : Microwave Scanning  
 Description : Beam Landing System

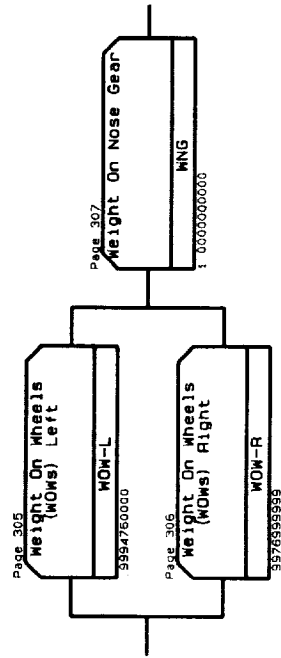




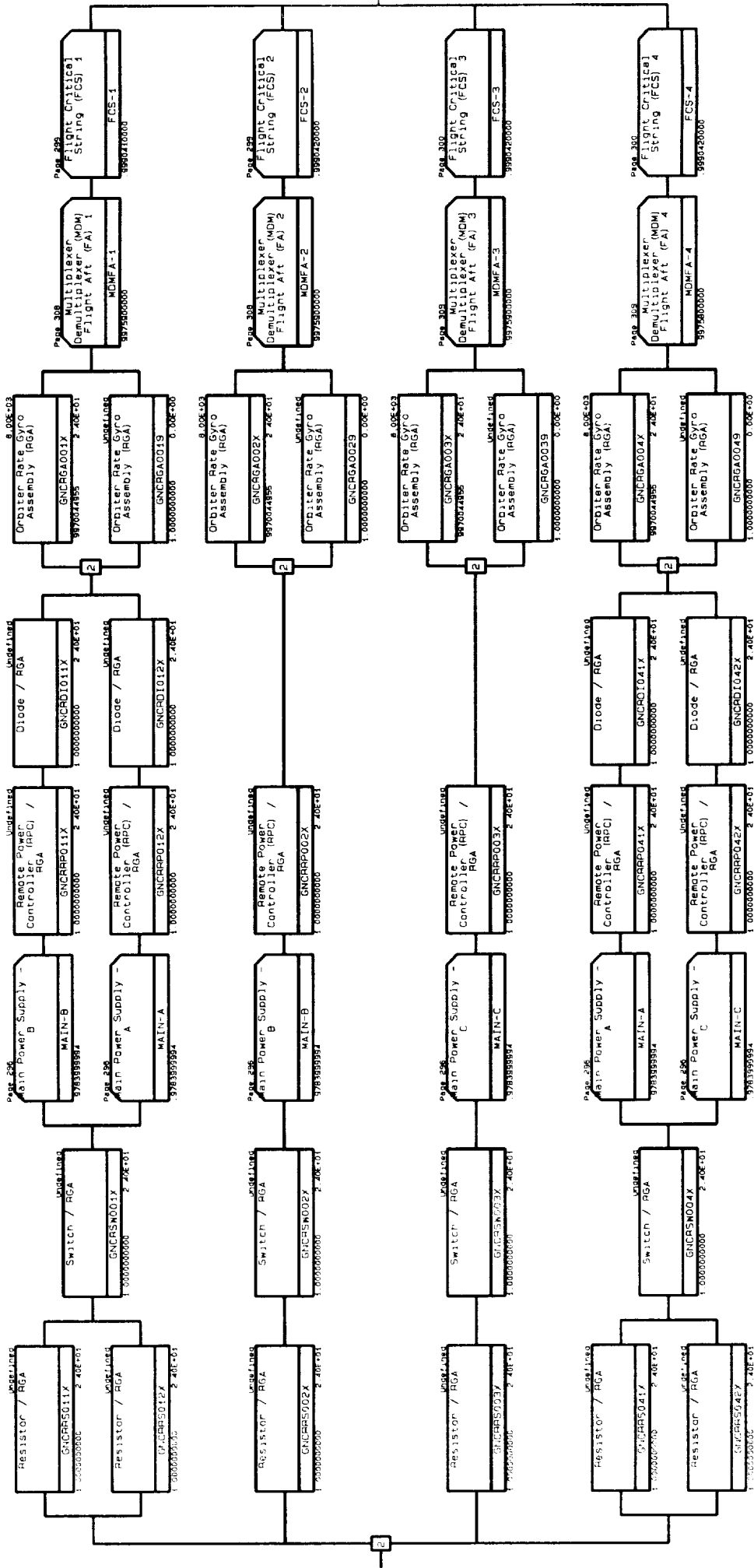
Module : SURFACES  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 9664999992  
 GT Source : MIST 12/08/92 13:51  
 Description : Aerodynamic Control Surfaces



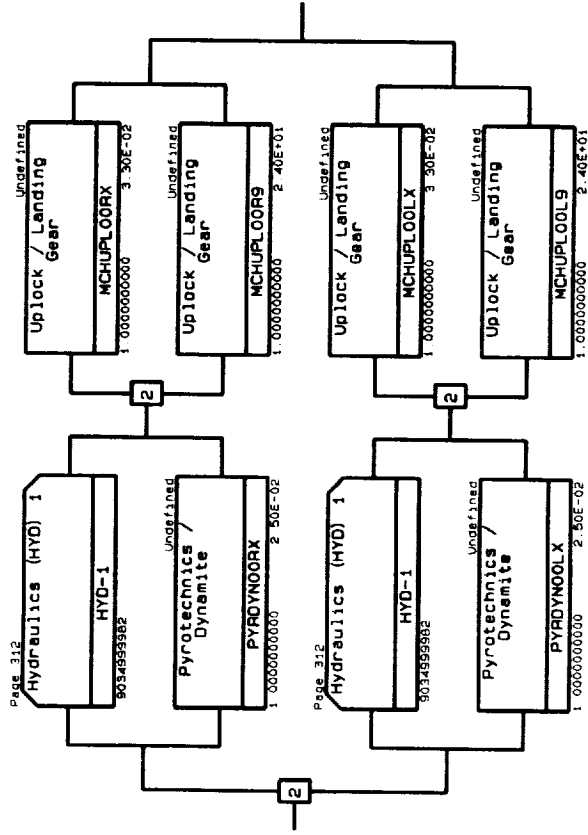
Module : WOW  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 9999999999  
 GT Source : MIST 12/08/92 13:51  
 Description : Weight On Wheels (WOWs)



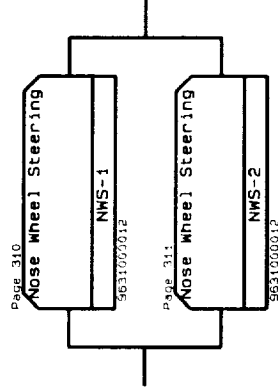
Module: RGA  
 Part Number: N/A  
 Expiry Date: 9999756000  
 Proc. Success: MIST 15/08/92 13:51  
 Description: Rate Gyro Assembly



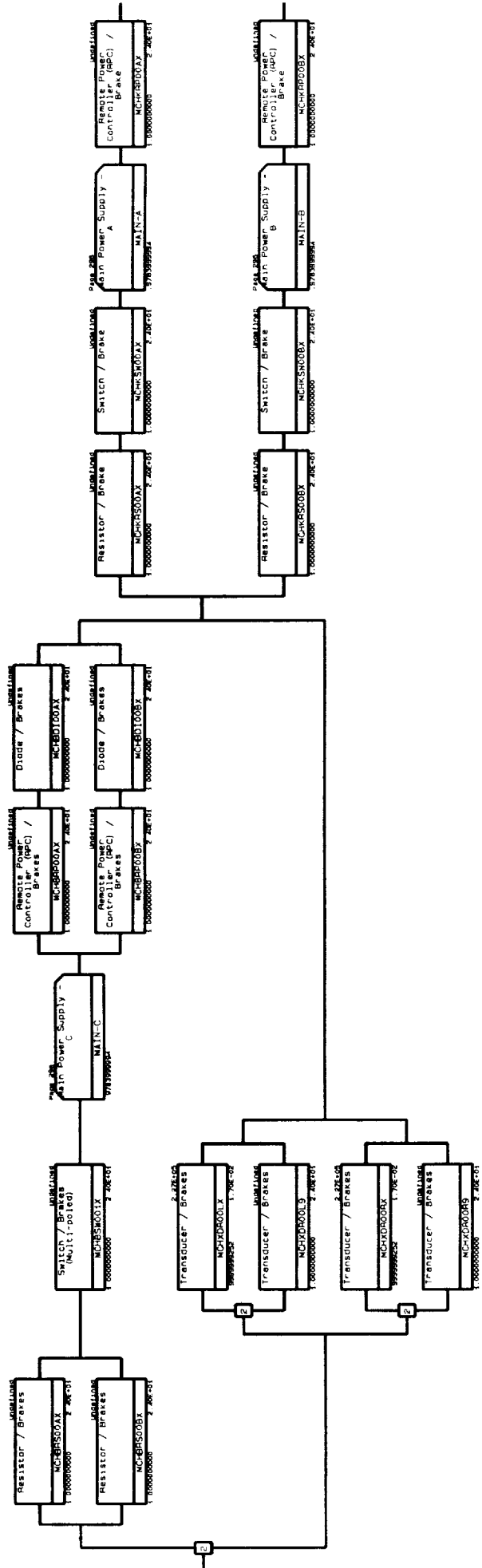
Module : MAINGEAR  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 1.000000000  
 GT Source : MIST 12/08/92 13:51  
 Description : Main Landing Gear



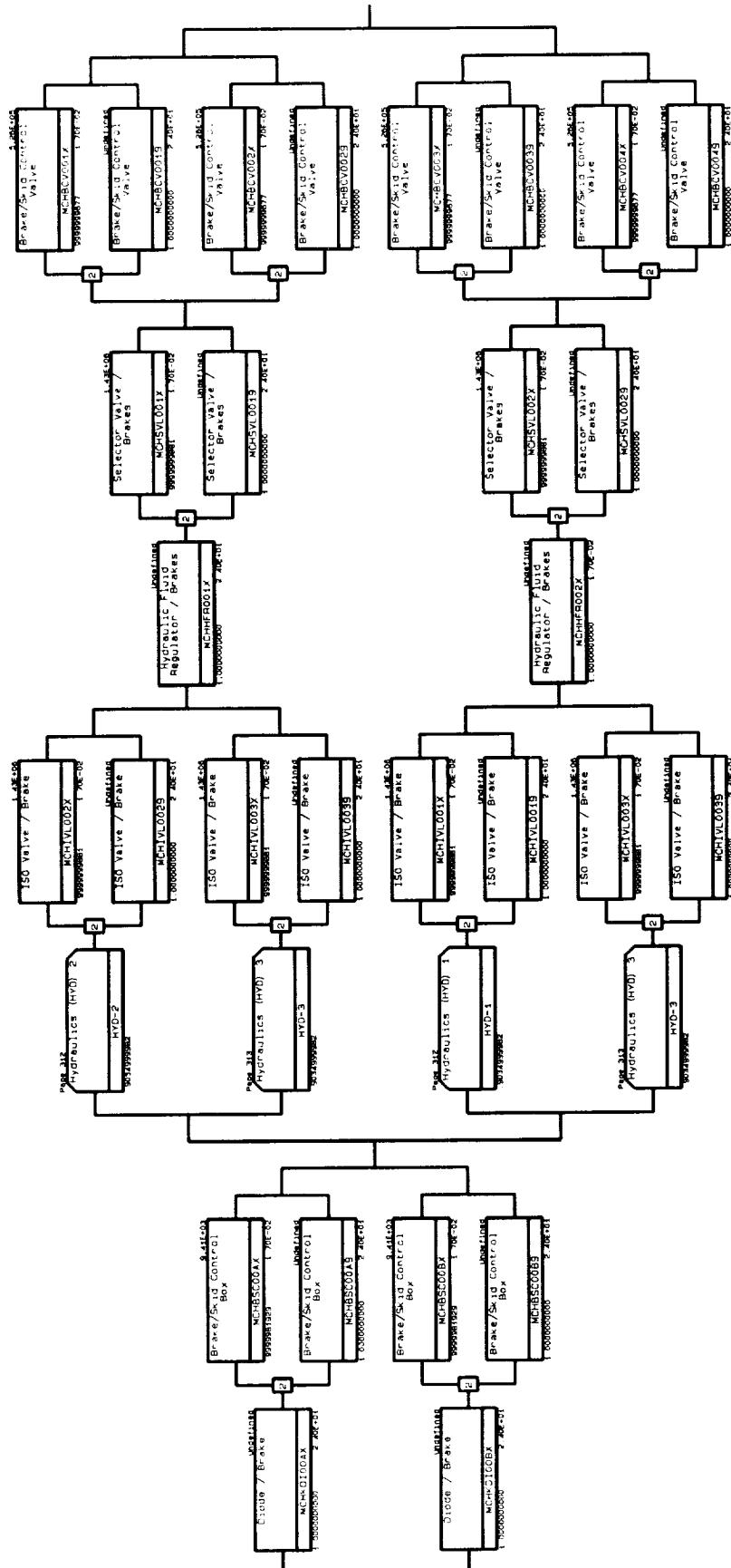
Module : NWS  
MTBF : N/A  
Exposure Time : 997789999  
Prob. Success : MIST 12/08/92 13: 51  
GT Source : Nose Wheel Steering  
Description : (NWS)



Module : BRAKE  
 Exposure Time : N/A  
 Prob. Success : 9770999998  
 Description : 12/27/92 13.51  
 Description : Brakes

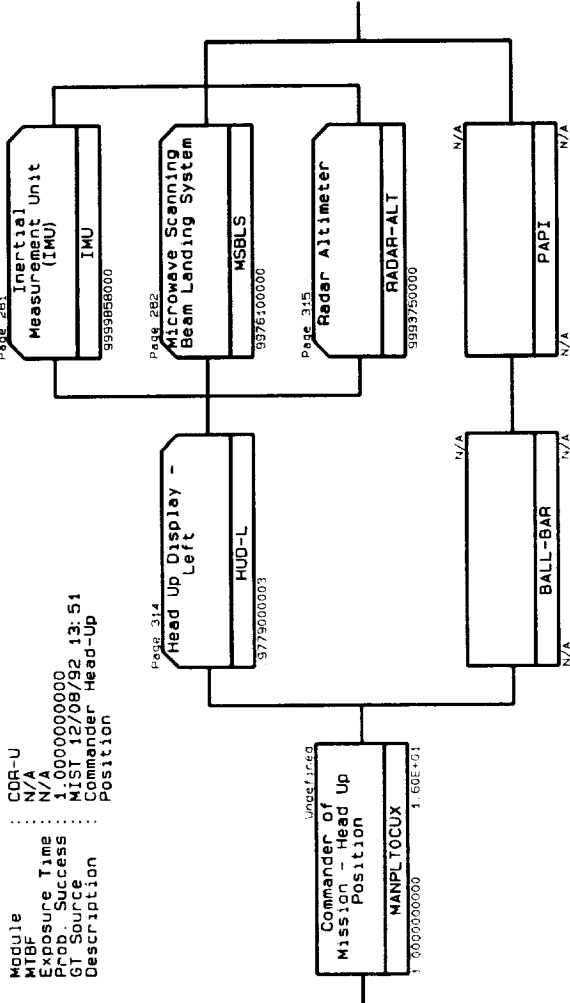




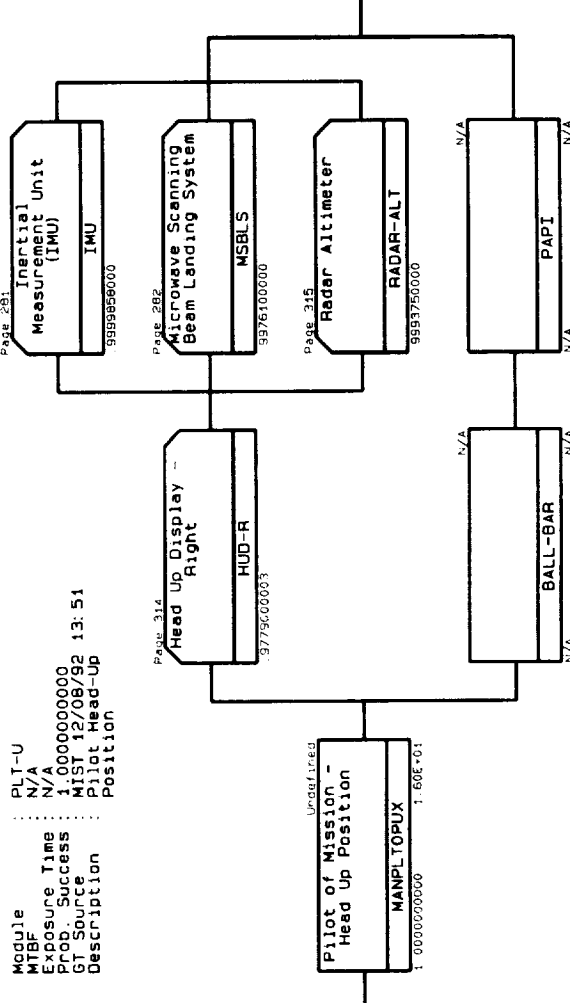




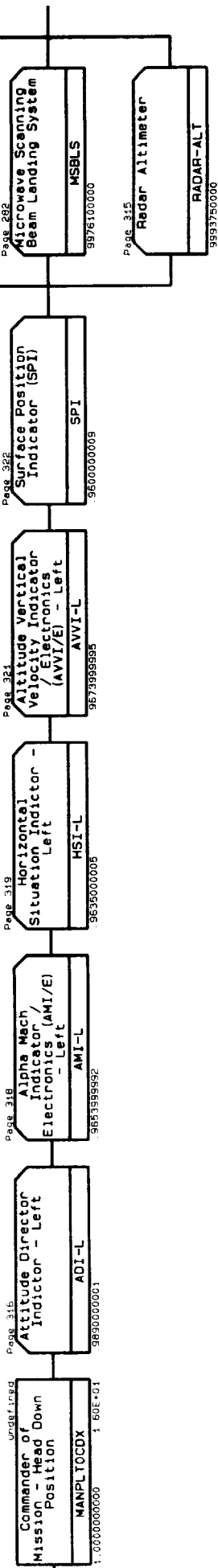
Module : COR-U  
 MTBF : N/A  
 Exposure Time : 1.0000000000  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Commander Head-Up  
 Description : Position



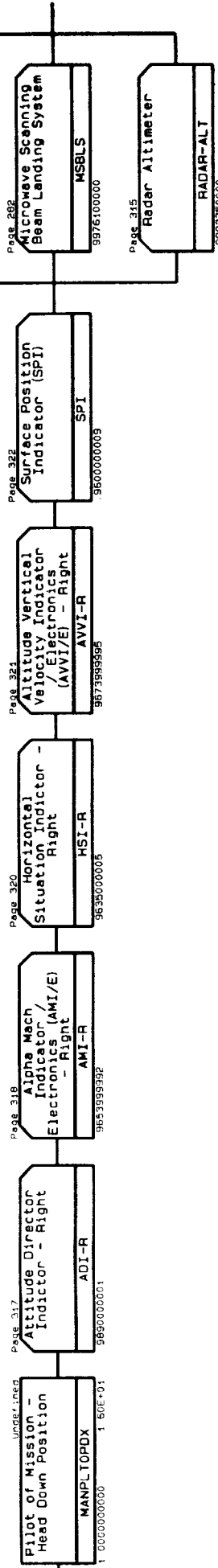
Module : PLT-U  
 MTBF : N/A  
 Exposure Time : 1.0000000000  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Pilot Head-Up  
 Description : Position



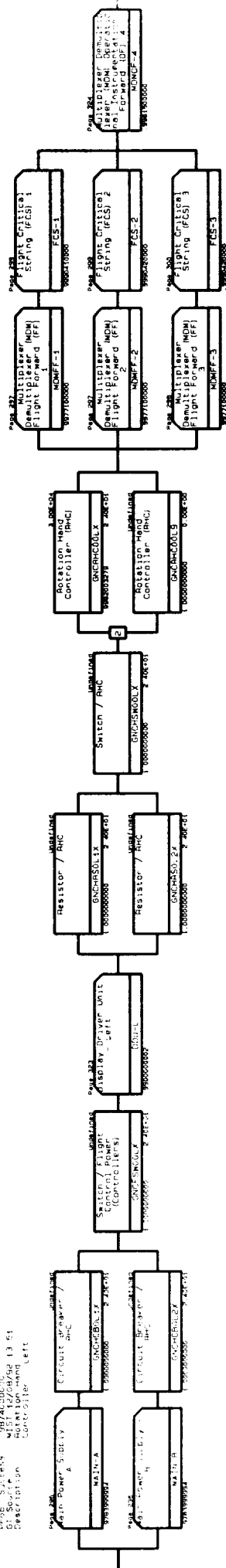
Module : COR-O  
 MTBF : N/A  
 Exposure Time : 9391000010  
 Prob. Success : MIST 12/08/92 13:51  
 Description : Commander Head-Down  
 Position



Module : PLT-O  
 MTBF : N/A  
 Exposure Time : 9187999964  
 Prob. Success : MIST 12/08/92 13:51  
 Description : Pilot Head-Down  
 Position



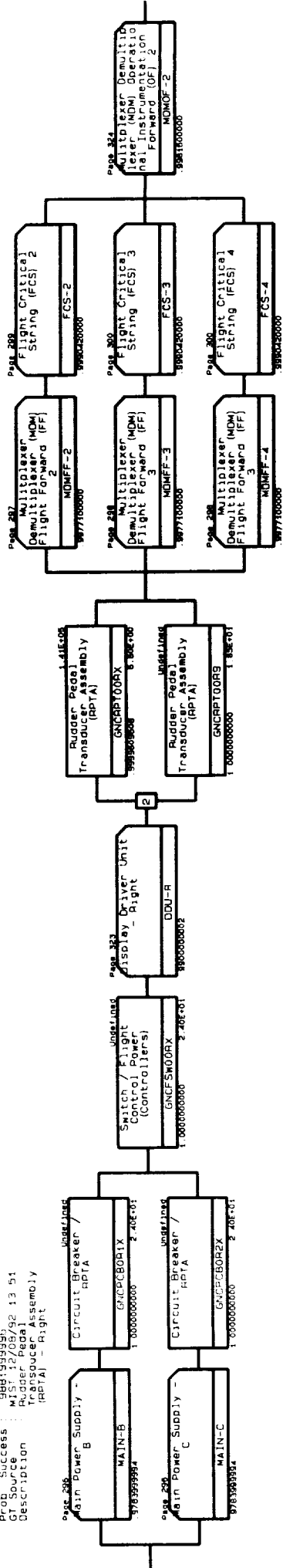
Module N/A-1  
 Location N/A-1  
 Description N/A-1  
 Part Number N/A-1  
 Revision N/A-1  
 Date N/A-1  
 Author N/A-1  
 Checker N/A-1  
 Approver N/A-1  
 Status N/A-1  
 Notes N/A-1



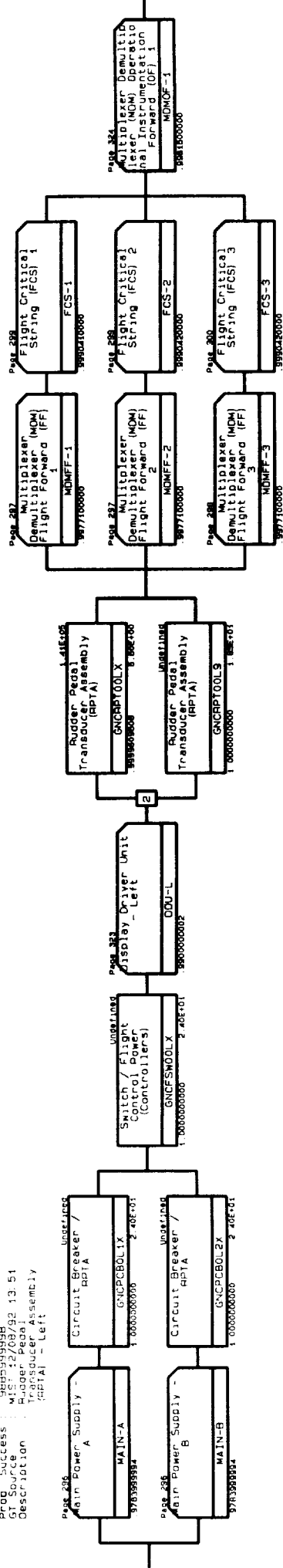




Module : RPTA-R  
 MTF : N/A  
 Exposure Time : 988199995  
 Prod. Success : MIS 12/05/92 13 51  
 Description : RPTA-RBDA Assembly  
 (RPTA) - Right

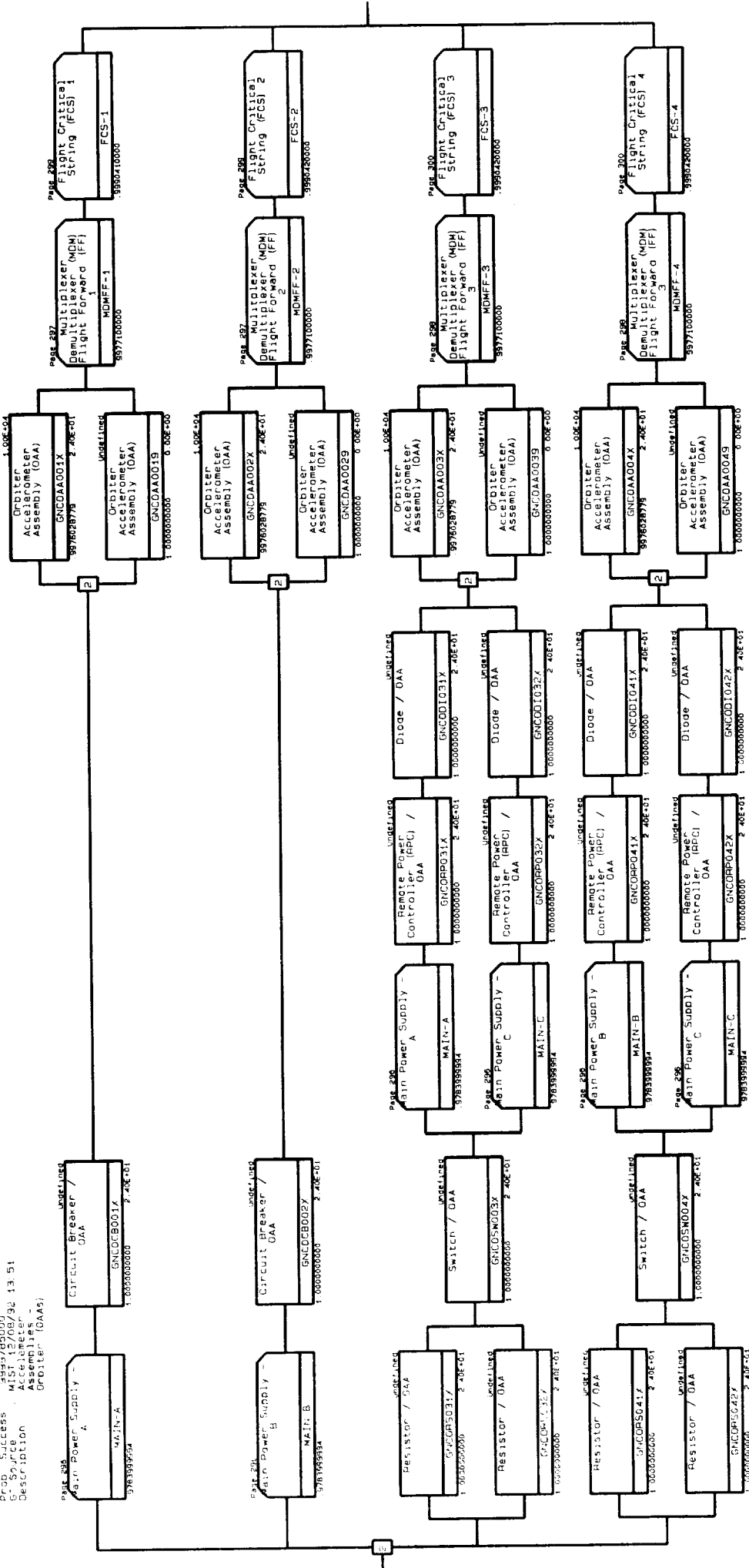


Module : RPTA-L  
 MTF : N/A  
 Exposure Time : 988199999  
 Prod. Success : MIS 12/05/92 13 51  
 Description : RPTA-LBDA Assembly  
 (RPTA) - Left



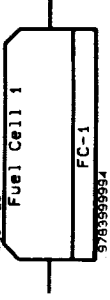


Module  
A.A.  
BP Source Time 4955785000  
Prod Source MIST 12/08/94 13:51  
Description Accelerometer  
Accelerometer  
Orbiter (GAAs)



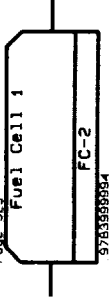
Module : MAIN-A  
MTBF : N/A  
Exposure Time : N/A  
Prob. Success : .9783999994  
Gr Source : MIST 12/08/92 13:51  
Description : Main Power Supply - A

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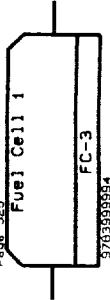
Module : MAIN-B  
MTBF : N/A  
Exposure Time : N/A  
Prob. Success : .9783999994  
Gr Source : MIST 12/08/92 13:51  
Description : Main Power Supply - B

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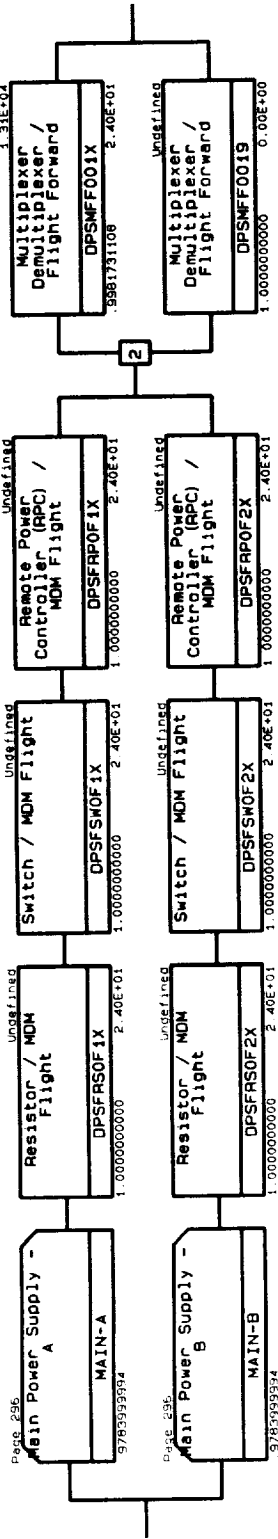


Module : MAIN-C  
MTBF : N/A  
Exposure Time : N/A  
Prob. Success : .9783999994  
Gr Source : MIST 12/08/92 13:51  
Description : Main Power Supply - C

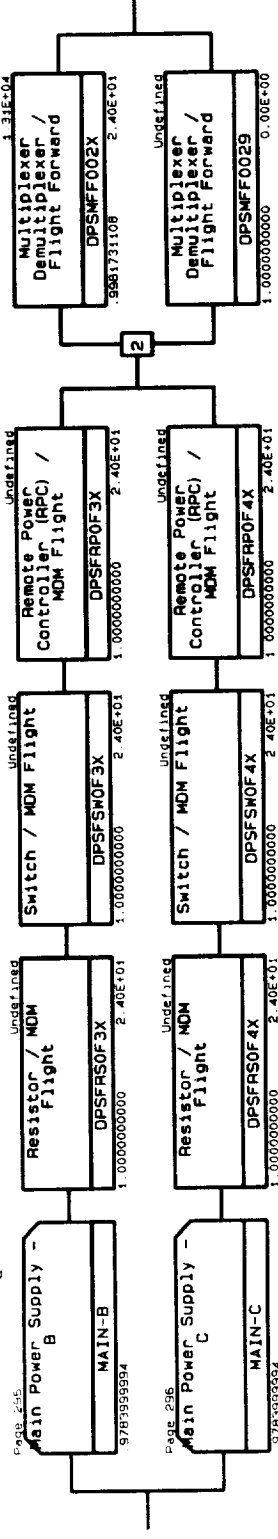
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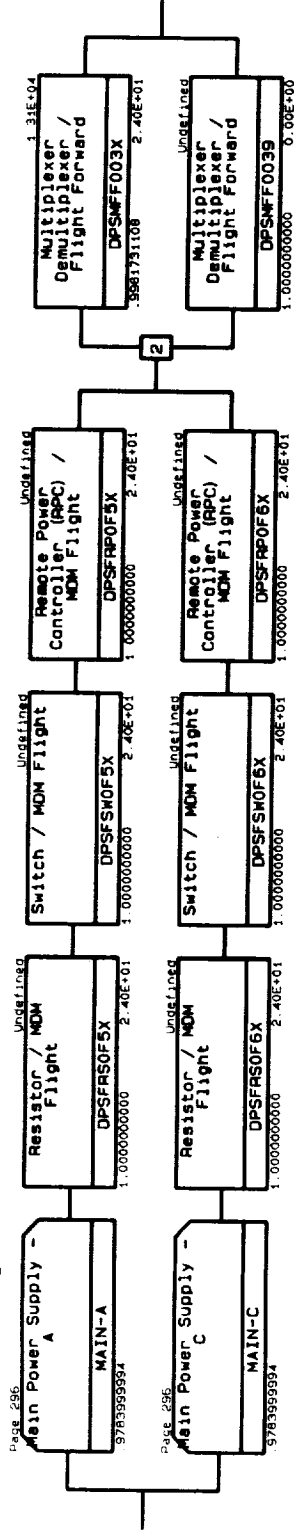
Module : MONFF-1  
 MIBF : N/A  
 Exposure Time : 9977100000  
 Prob Success : MIST 12/08/92 13: 51  
 GT Source : Multiplexer  
 Description : Demultiplexer (MDM)  
 Flight Forward (FF)  
 1



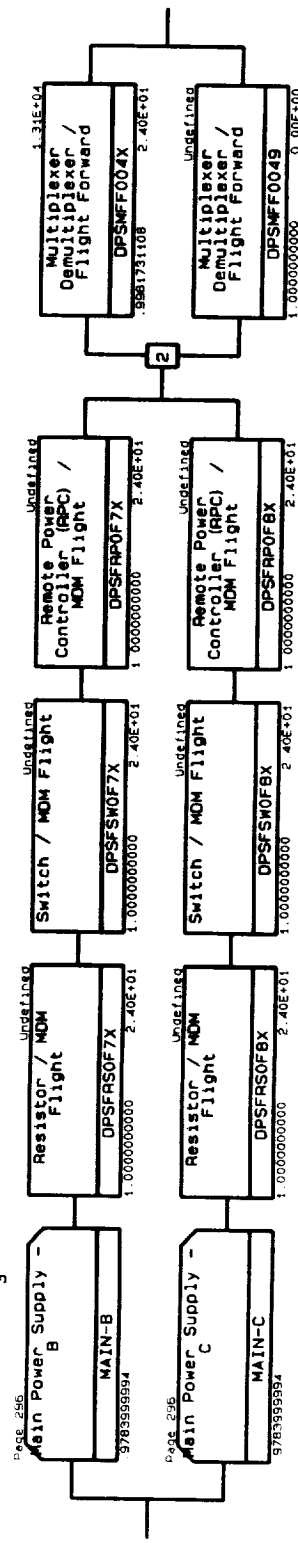
Module : MONFF-2  
 MIBF : N/A  
 Exposure Time : 9977100000  
 Prob Success : MIST 12/08/92 13: 51  
 GT Source : Multiplexer  
 Description : Demultiplexer (MDM)  
 Flight Forward (FF)  
 2



Module : MONFF-3  
 MTBF : N/A  
 Exposure Time : 9977100000  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Multiplexer  
 Description : Demultiplexer (MDM)  
 Flight Forward (FF)  
 3



Module : MONFF-4  
 MTBF : N/A  
 Exposure Time : 9977100000  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Multiplexer  
 Description : Demultiplexer (MDM)  
 Flight Forward (FF)  
 3



Module : FCS-1  
MISF : N/A  
Exposure Time : 9990410000  
Prob. Success : MIST 12/08/92 13: 51  
GI Source : Flight Critical  
Description : String (FCS) 1

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General Purpose Computer (GPC) 1
GPC-1
9990410000

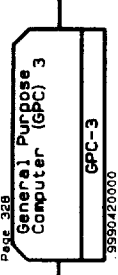
Module : FCS-2  
MISF : N/A  
Exposure Time : 9990420000  
Prob. Success : MIST 12/08/92 13: 51  
GI Source : Flight Critical  
Description : String (FCS) 2

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General Purpose Computer (GPC) 2
GPC-2
9990420000

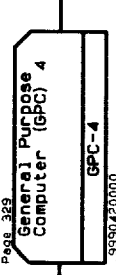
Module : FCS-3  
MIB : N/A  
Exposure Time : 9990420000  
Photo Success : WTS12/09/92 13:51  
GT Source : Flight Critical  
Description : String (FCS) 3

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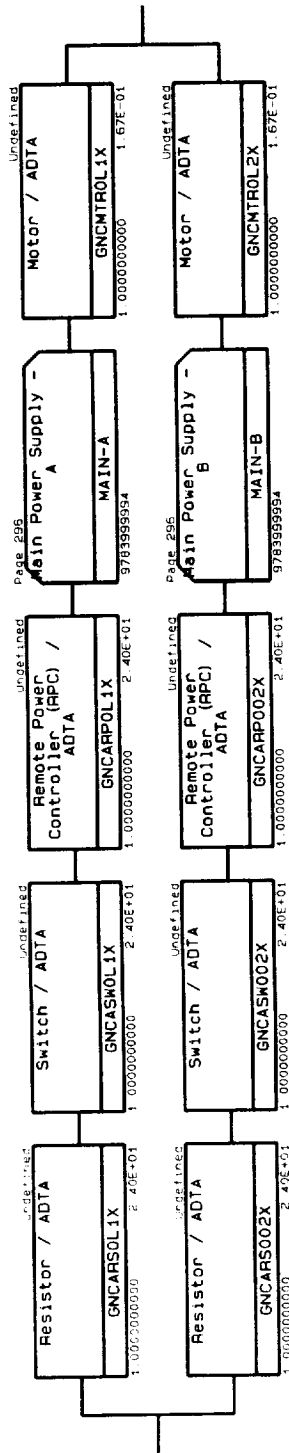


Module : FCS-4  
MIB : N/A  
Exposure Time : 9990420000  
Photo Success : WTS12/09/92 13:51  
GT Source : Flight Critical  
Description : String (FCS) 4

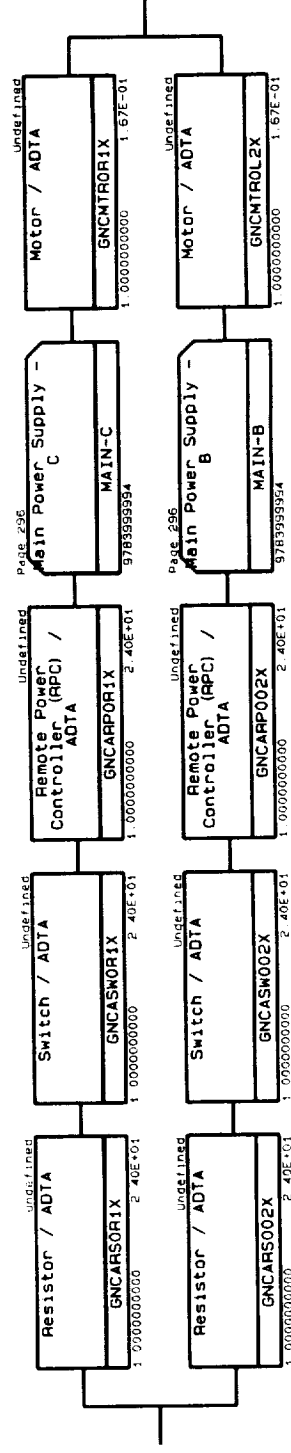
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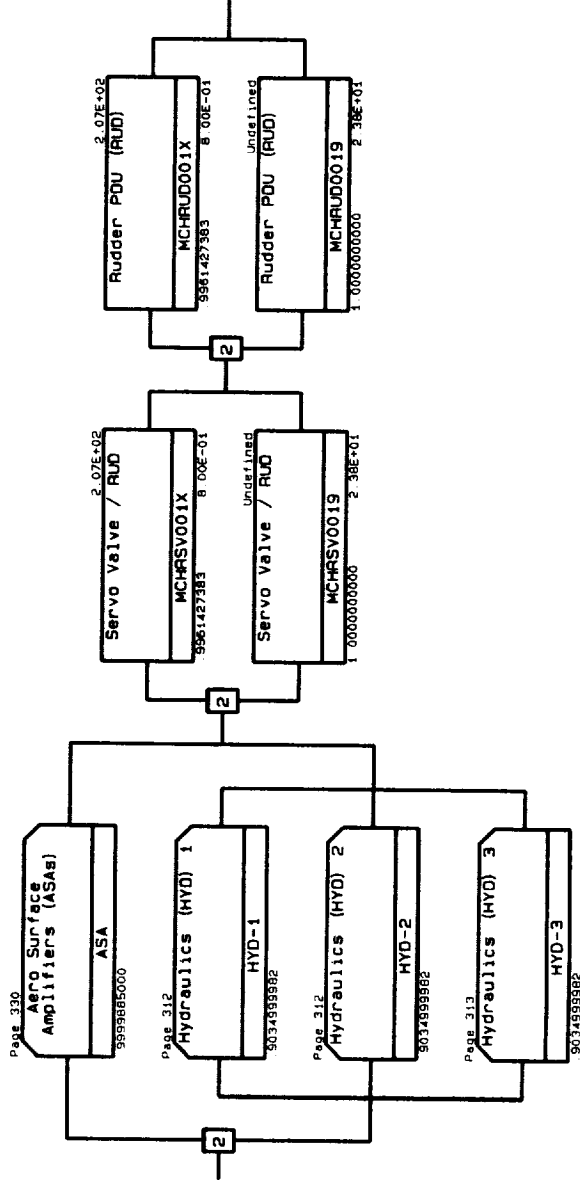
Module : MOTOR-L  
 MTBF : N/A  
 Exposure Time : N695410000  
 Prob. Success : WST 12/08/92 13:51  
 GI Source : Left Air Data Prob  
 Description : Deploy Motor



Module : MOTOR-R  
 MTBF : N/A  
 Exposure Time : N695390000  
 Prob. Success : WST 12/08/92 13:51  
 GI Source : Right Air Data  
 Description : Probe Deploy Motor

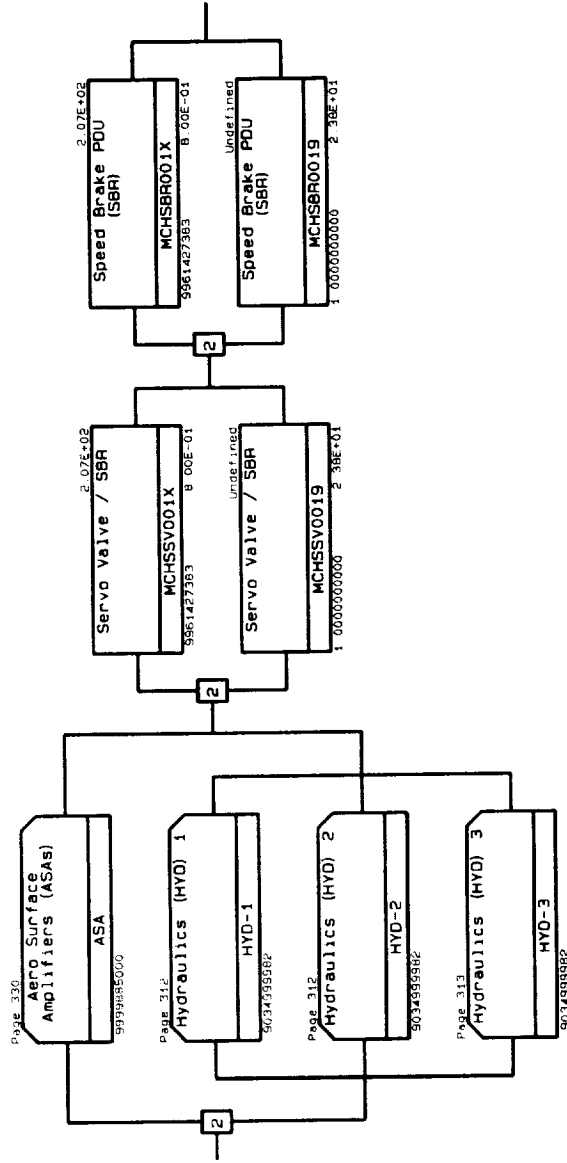


Module : RUDDER  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 9914100002  
 GT Source : MIST 12/08/92 13: 51  
 Description : Rudder

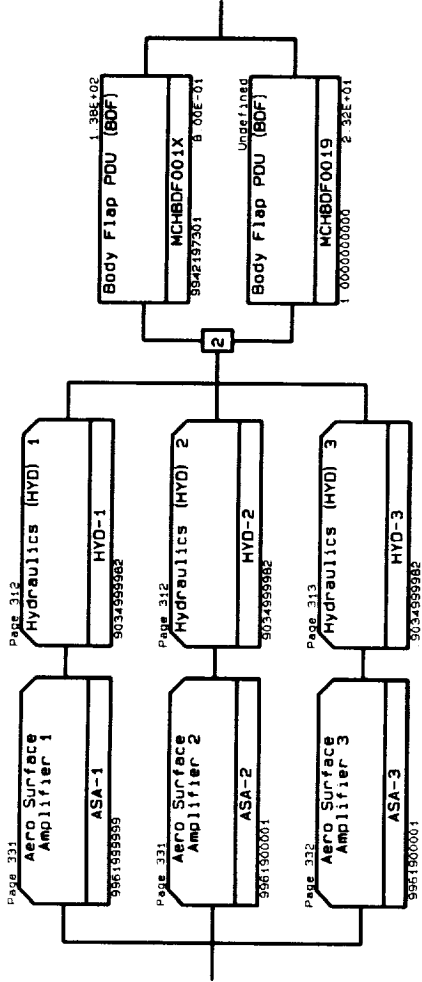




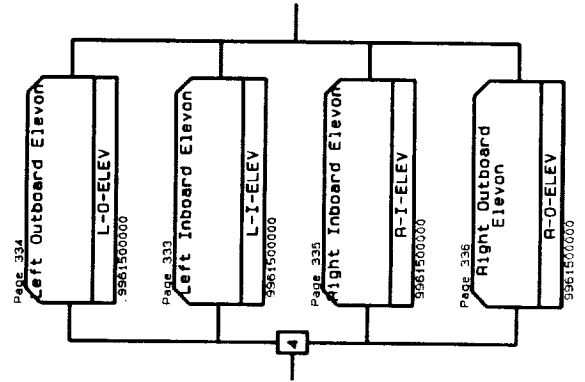
Module : SPDBRK  
 RTBF : N/A  
 Assurance Time : 9814100002  
 Success : MIST 12/08/92 13:51  
 GI Source : Speed Brake  
 Description :



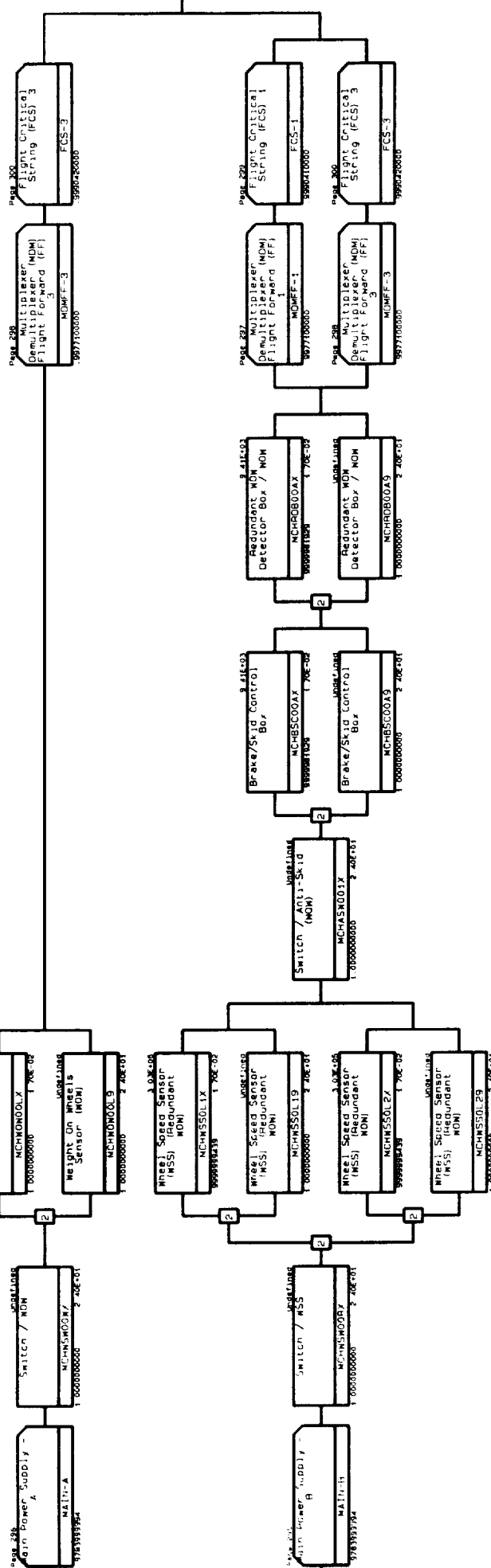
Module : BOYFLAP  
 MIBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 987400000  
 GT Source : MIST 12/08/92 13: 51  
 Description : Body Flap



Module : ELEVONS  
 MIBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 987400000  
 GT Source : MIST 12/08/92 13: 51  
 Description : Elevons

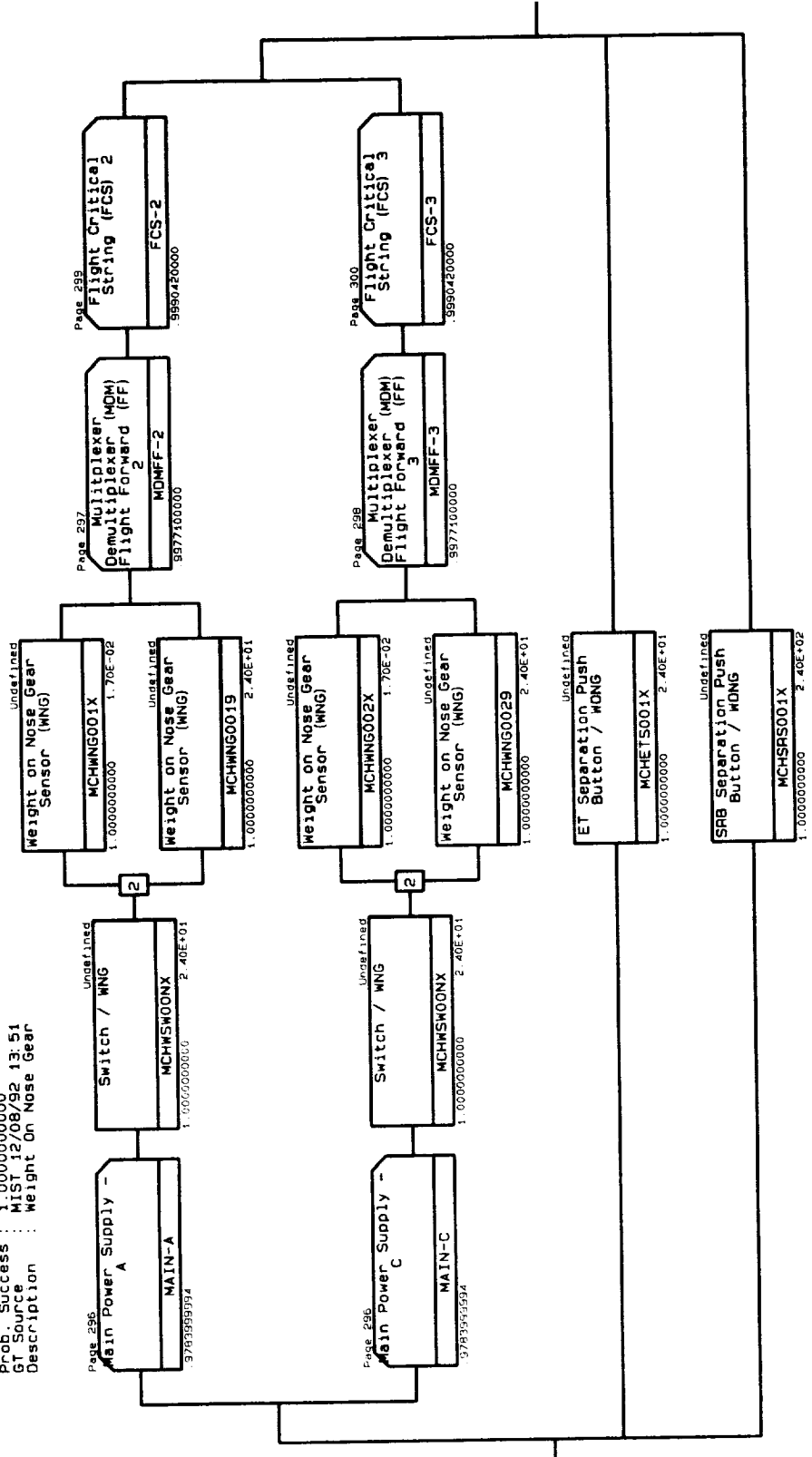


MODULE: N/A  
 WTEF: N/A  
 C/DOS: 12/08/92  
 S/C: 12/08/92  
 Description: Weight On Wheels  
 (NOMs) Left

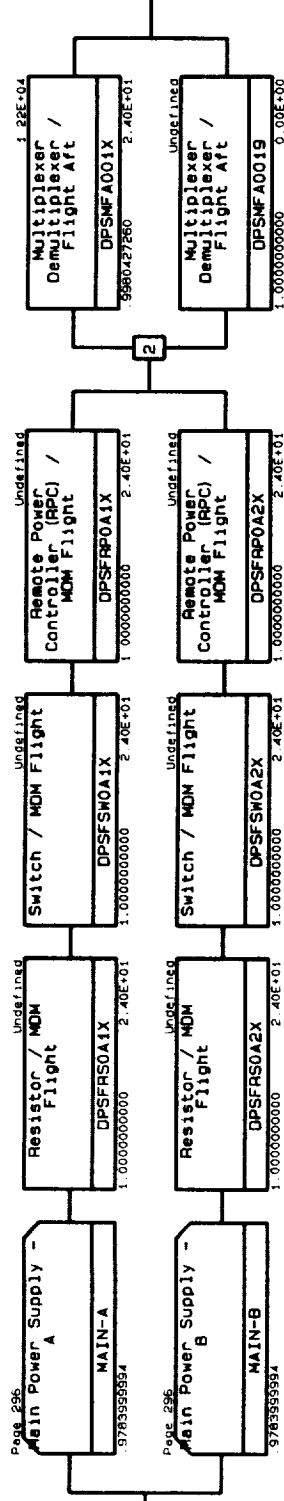




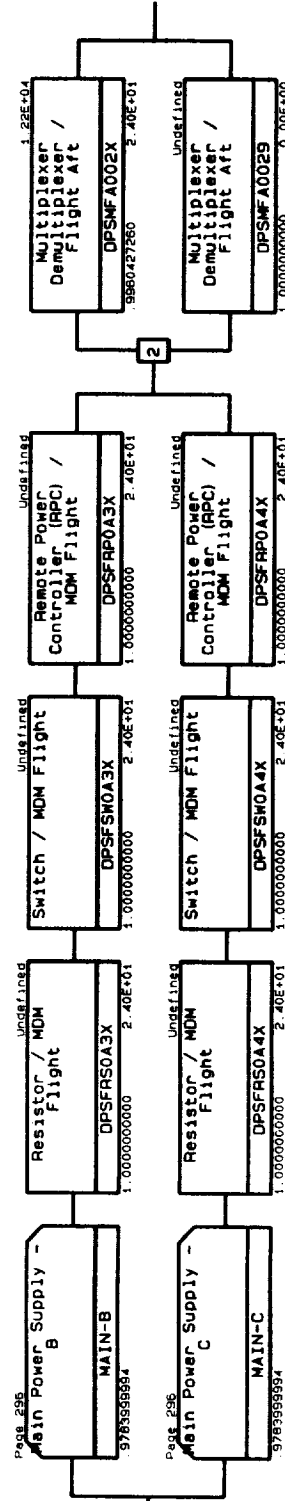
Module : WNG  
 MTBF : N/A  
 Exposure Time : 1.0000000000  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Weight On Nose Gear  
 Description :



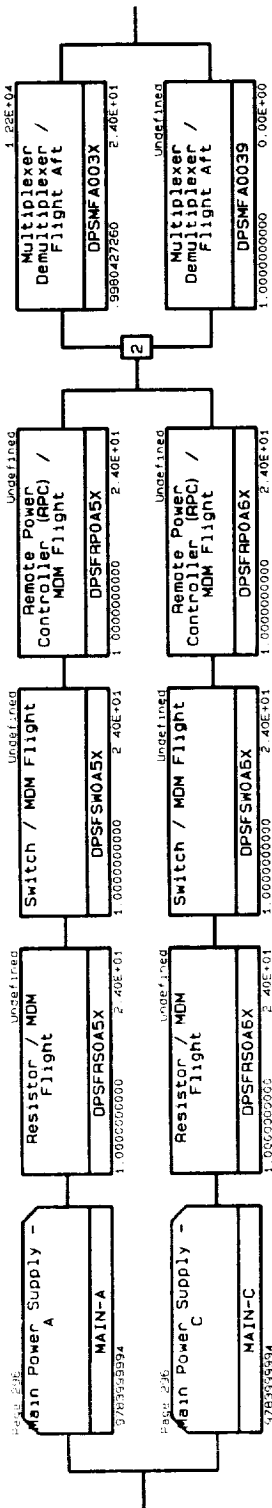
Module : MDNFA-1  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : .9975900000  
 GI Source : MIST 12/08/92 13: 51  
 Description : Multiplexer  
 Demultiplexer (MDM)  
 Flight Aft (FA) 1



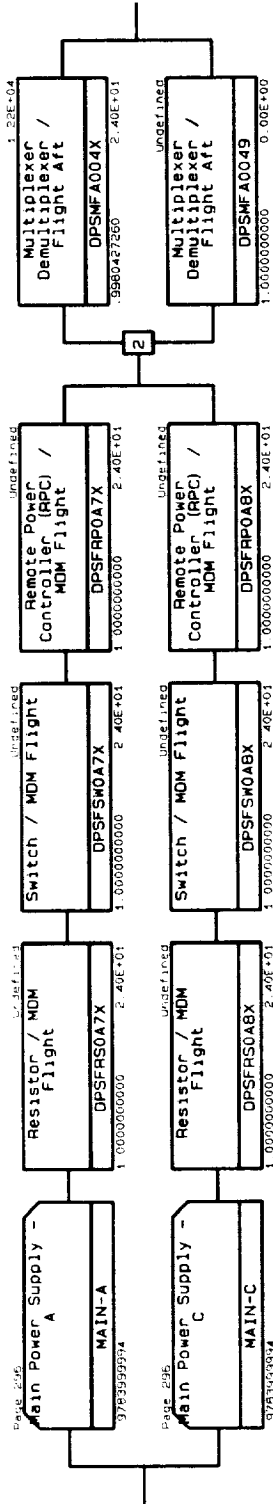
Module : MDNFA-2  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : .9975900000  
 GI Source : MIST 12/08/92 13: 51  
 Description : Multiplexer  
 Demultiplexer (MDM)  
 Flight Aft (FA) 2



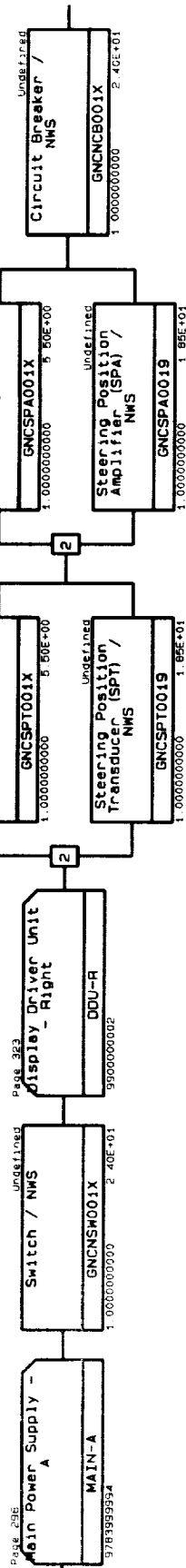
Module : MDNFA-3  
 MTBF : N/A  
 Exposure Time : .9975900000  
 Prob. Success : MIST 12/08/92 13: 51  
 GI Source : Multiplexer  
 Description : Demultiplexer (MDM)  
 Flight Aft (FA) 3



Module : MDNFA-4  
 MTBF : N/A  
 Exposure Time : .9975900000  
 Prob. Success : MIST 12/08/92 13: 51  
 GI Source : Multiplexer  
 Description : Demultiplexer (MDM)  
 Flight Aft (FA) 4

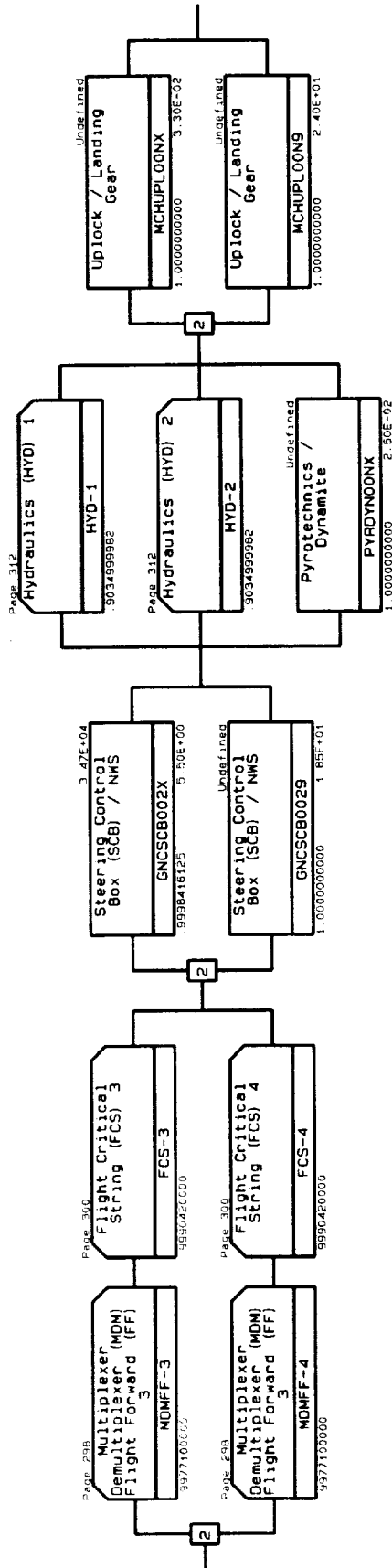
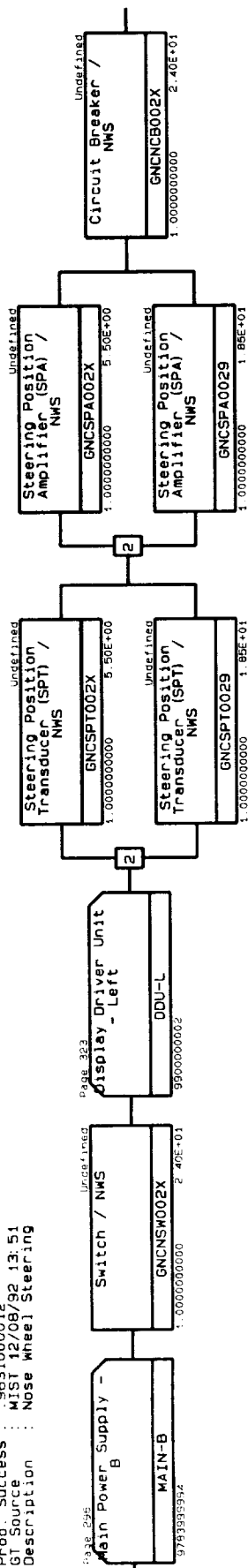


Module : NWS-1  
 MTBF : N/A  
 Exposure Time : .9631000012  
 Prob. Success : MIST 12/08/92 13:51  
 GI Source : Nose Wheel Steering  
 Description :

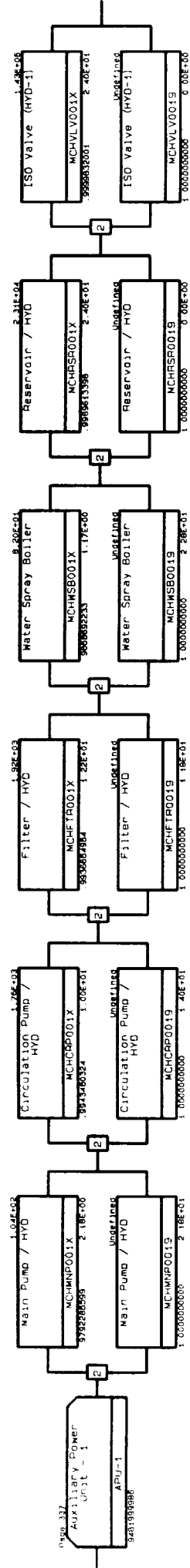




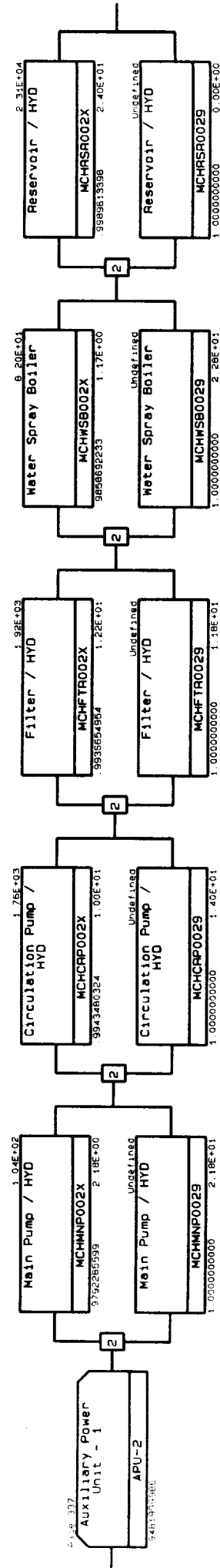
Module : NMS-2  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : .9631000012  
 GT Source : MIST 12/08/92 13:51  
 Description : Nose Wheel Steering



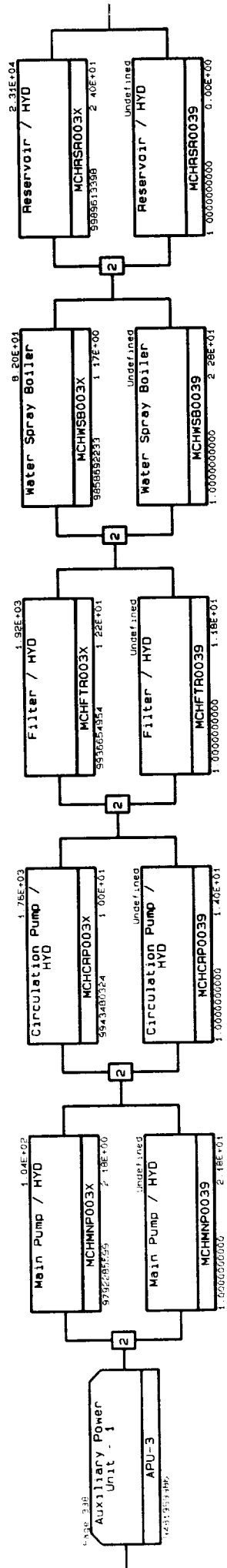
Module : HYD-1  
 MTBF : N/A  
 Exposure Time : 9034999982  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Hydraulics (HYD) 1  
 Description :

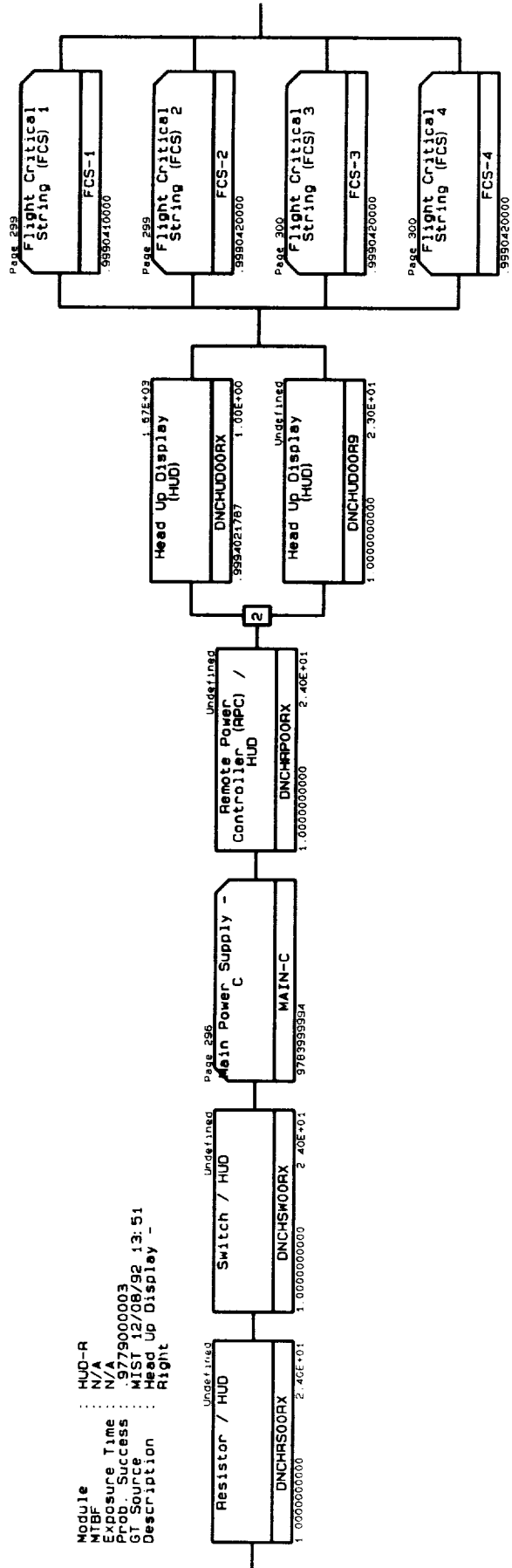


Module : HYD-2  
 MTBF : N/A  
 Exposure Time : 9034999982  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Hydraulics (HYD) 2  
 Description :



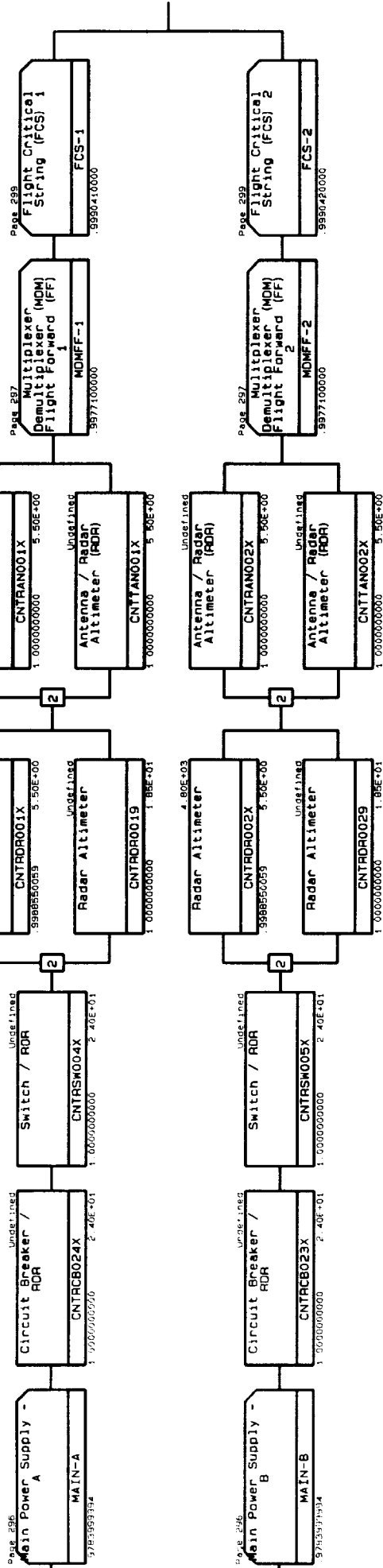
Module : HYD-3  
 MTBF : N/A  
 Exposure Time : 903499982  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Hydraulics (HYD) 3  
 Description :



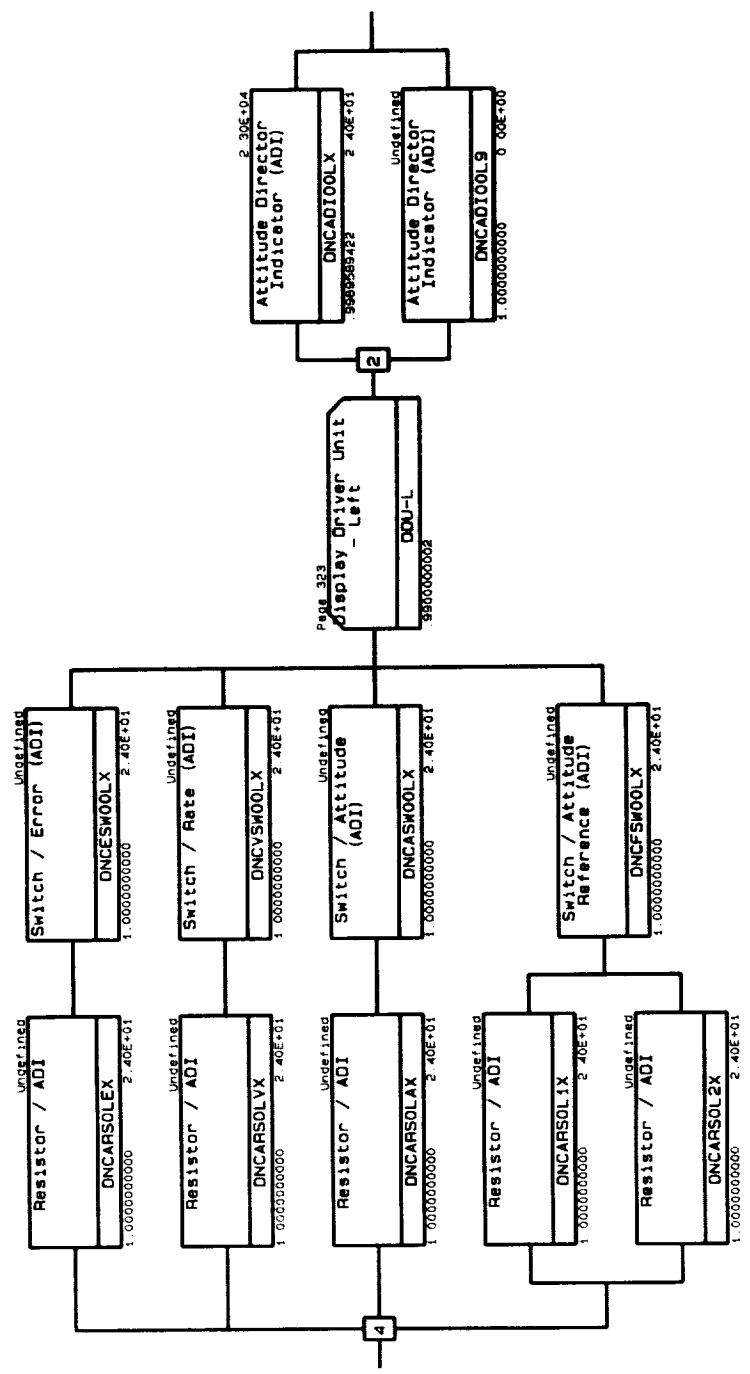


Module : HUD-L  
 MTBF : N/A  
 Exposure Time : 9779000003  
 Prob Success : MTST 12/08/92 13:51  
 GI Source : Head Up Display -  
 Description : Left

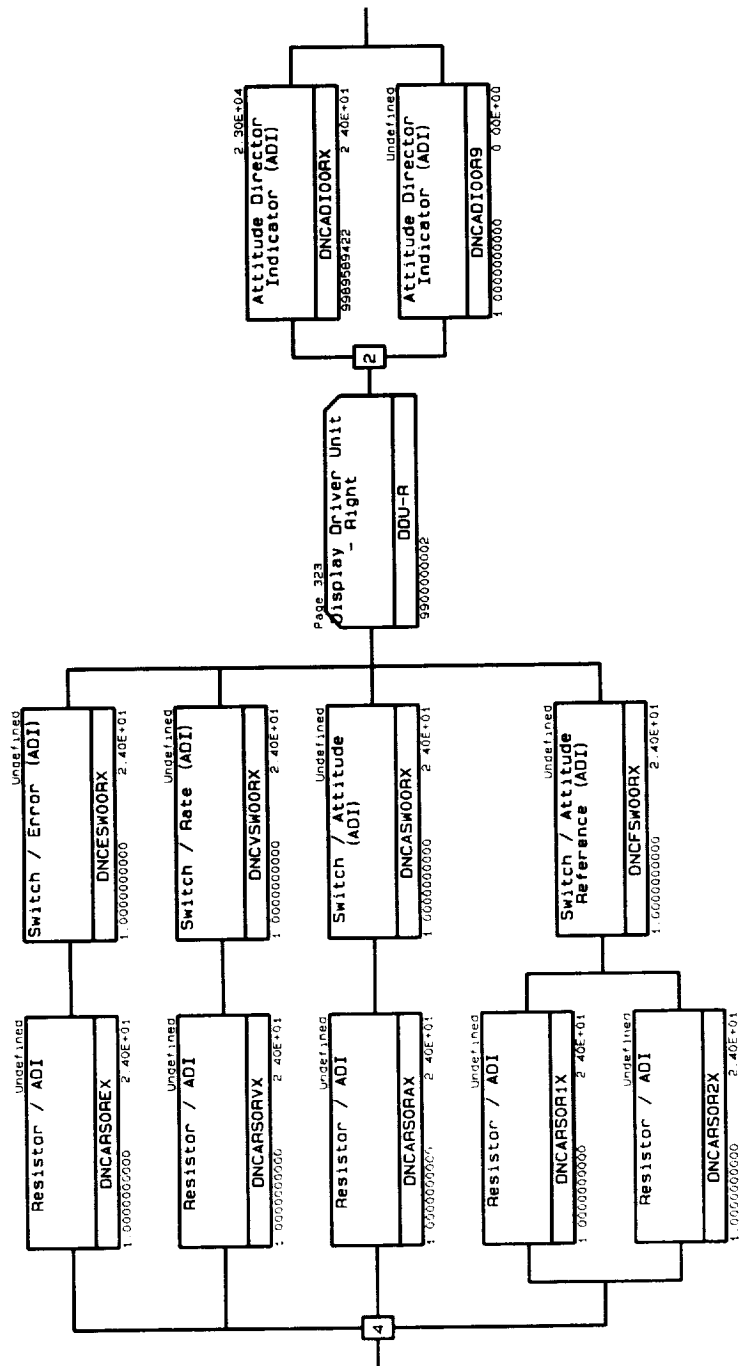
Module : RADAR-ALT  
 MTBF : N/A  
 Exposure Time : 9993750000  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Radar Altimeter  
 Description :



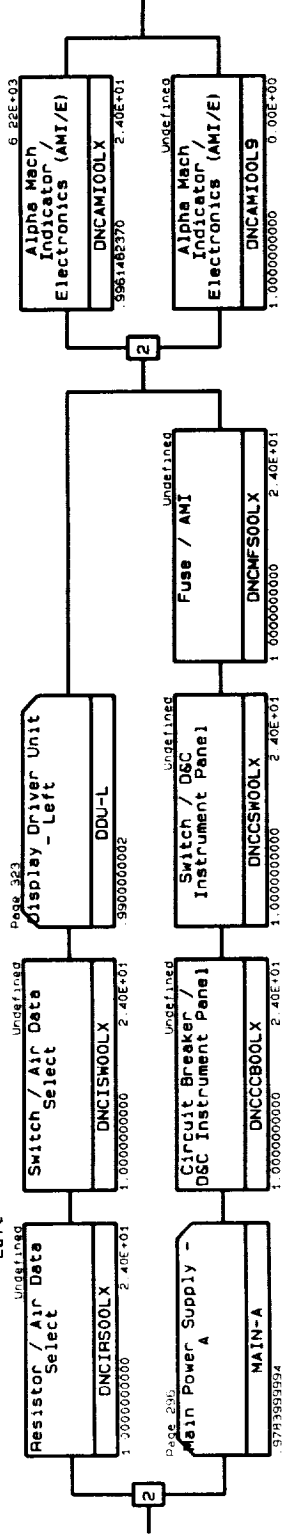
Module : ADI-L  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 9890000001  
 GT Source : MIST 12/08/92 13:51  
 Description : Attitude Director Indicator - Left



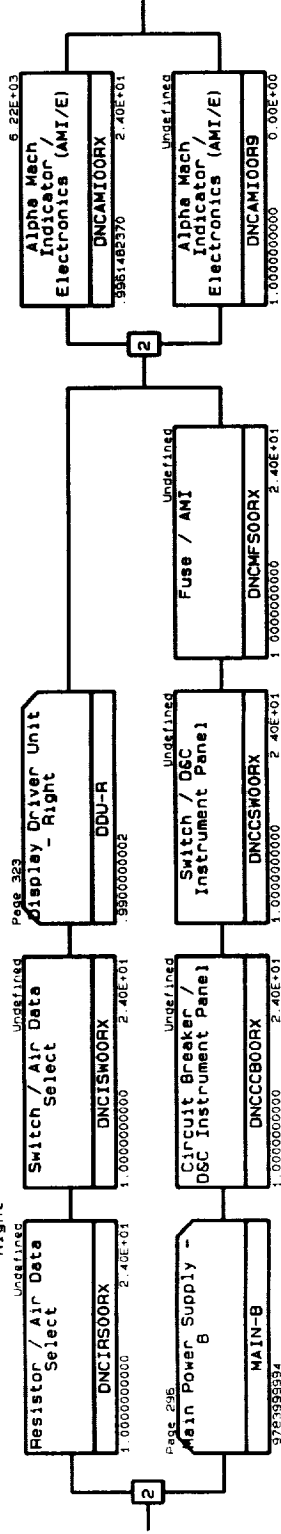
Module : ADI-R  
 MIBF : N/A  
 Exposure Time : 06890000001  
 Prob. Success : 12/08/92 13:51  
 GI Source : Attitude Director  
 Description : Indicator - Right



Module : AMI-L  
 MTBF : N/A  
 Exposure Time : 9653999992  
 Prob. Success : MIST 12/08/92 13: 51  
 GI Source : Alpha Mach  
 Description : Indicator /  
 Electronics (AMI/E)  
 - Left



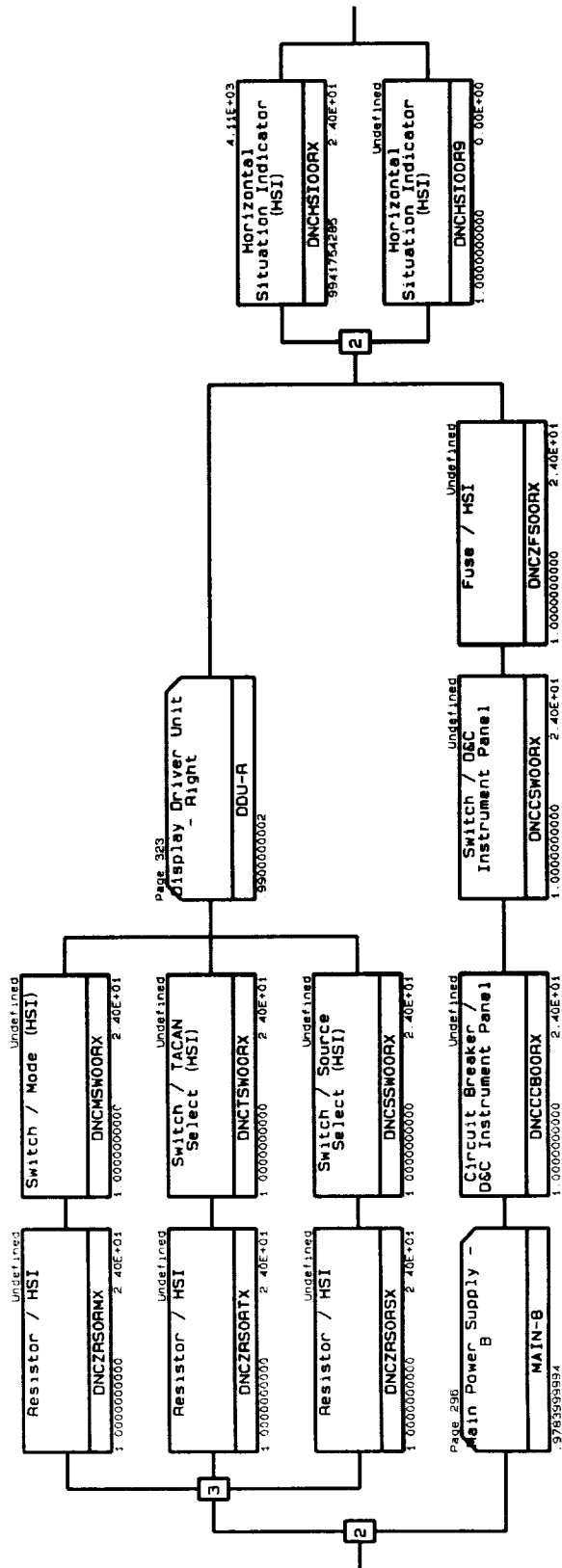
Module : AMI-R  
 MTBF : N/A  
 Exposure Time : 9653999992  
 Prob. Success : MIST 12/08/92 13: 51  
 GI Source : Alpha Mach  
 Description : Indicator /  
 Electronics (AMI/E)  
 - Right



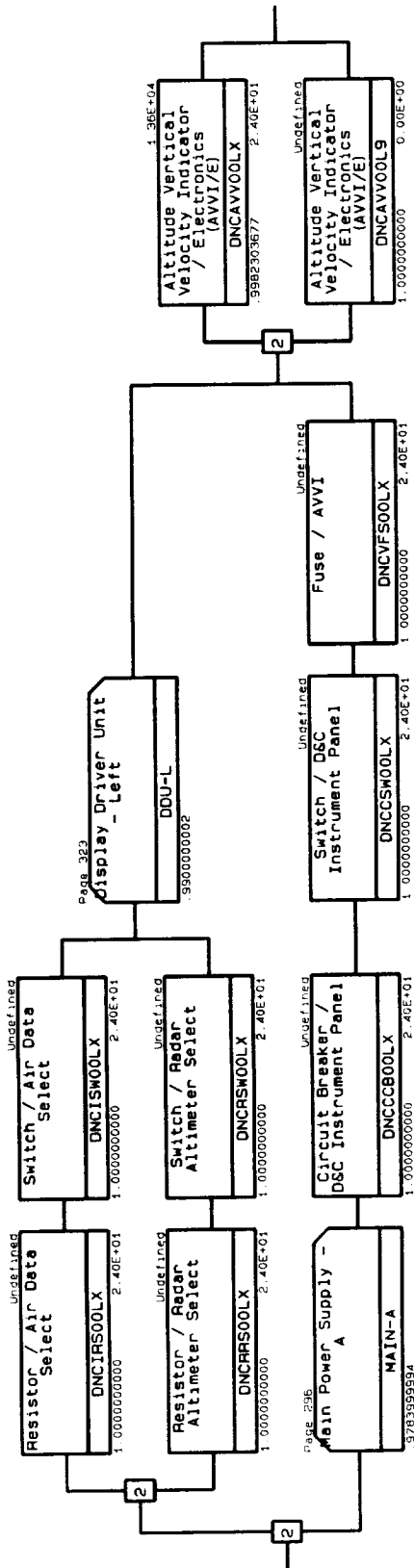




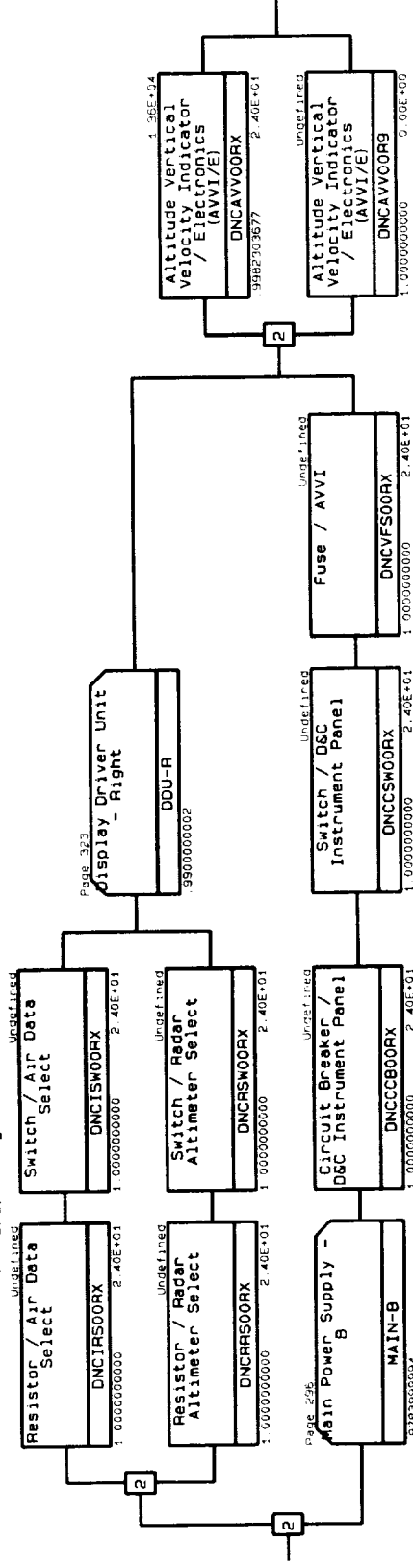
Module : HSI-R  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 9835000005  
 GT Source : MIST 12/08/92 13: 51  
 Description : Horizontal  
 Situation Indicator -  
 Right



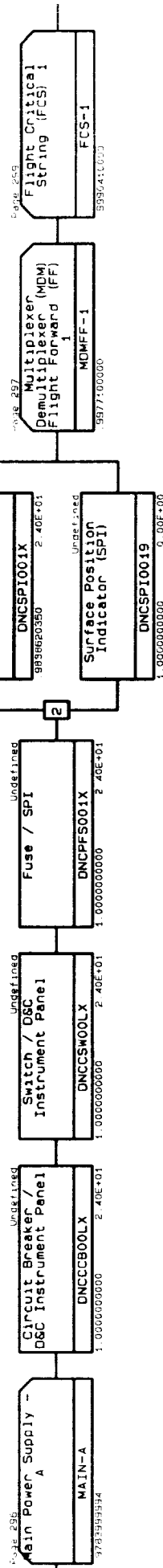
MTBF : N/A  
 Exposure Time : 9673999995  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Altitude Vertical  
 Description : Velocity Indicator  
 / Electronics  
 (AVVI/E) - Left



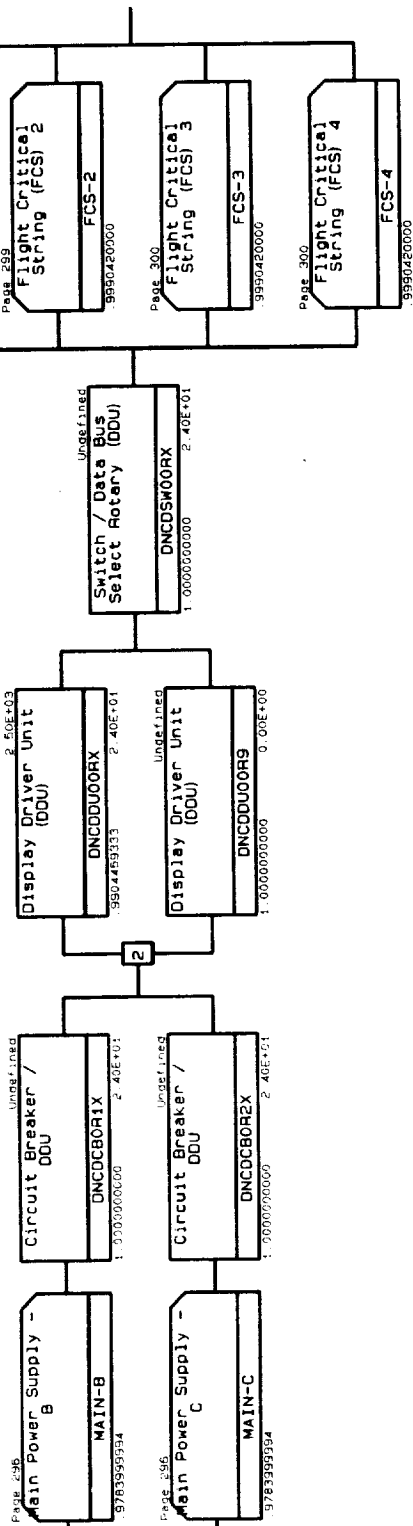
Module : AVVI-R  
 MTBF : N/A  
 Exposure Time : 9673999995  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Altitude Vertical  
 Description : Velocity Indicator  
 / Electronics  
 (AVVI/E) - Right



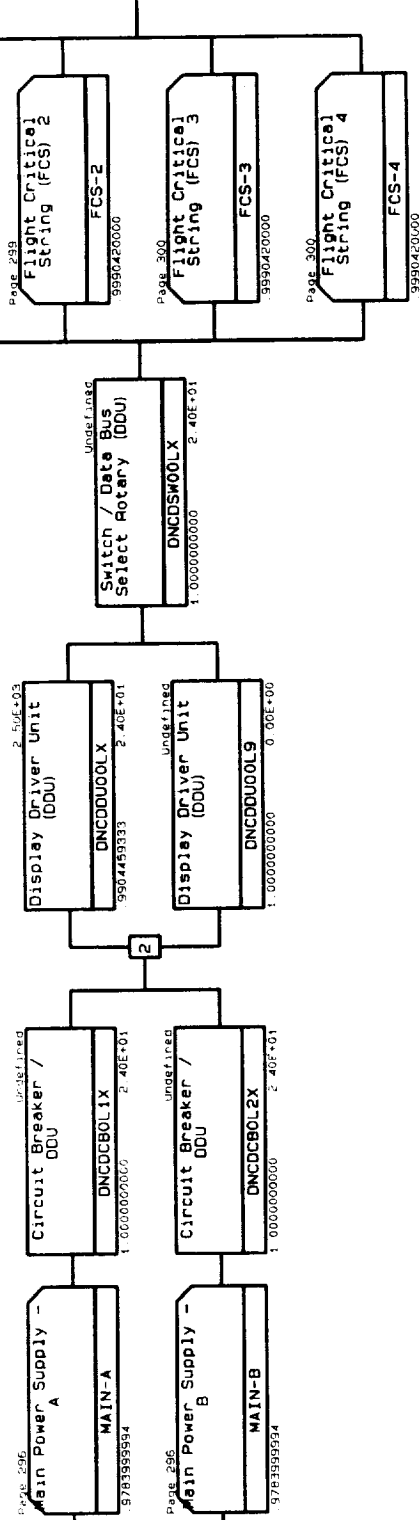
Module : SPI  
 MTBF : N/A  
 Exposure Time : .9600000009  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Surface Position  
 Description : Indicator (SPI)



Module : ODU-R  
 MTBF : N/A  
 Exposure Time : .9900000002  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Display Driver Unit  
 Description : - Right

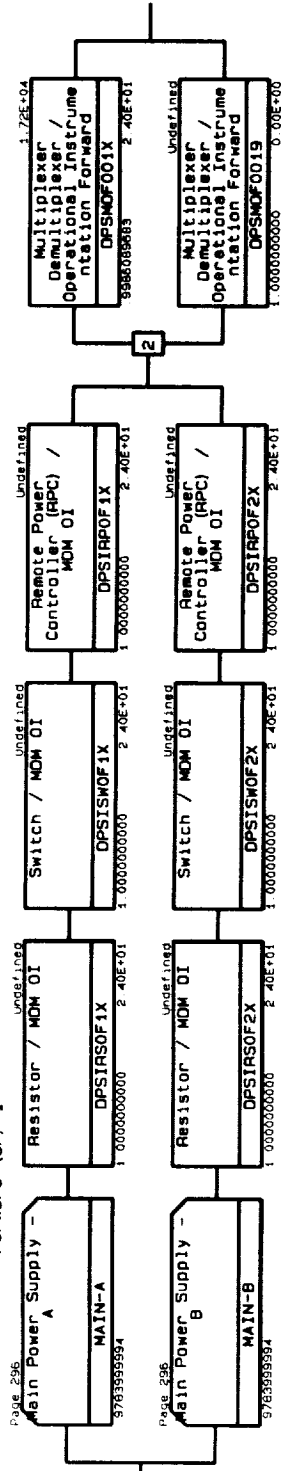


Module : ODU-L  
 MTBF : N/A  
 Exposure Time : .9900000002  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Display Driver Unit  
 Description : - Left



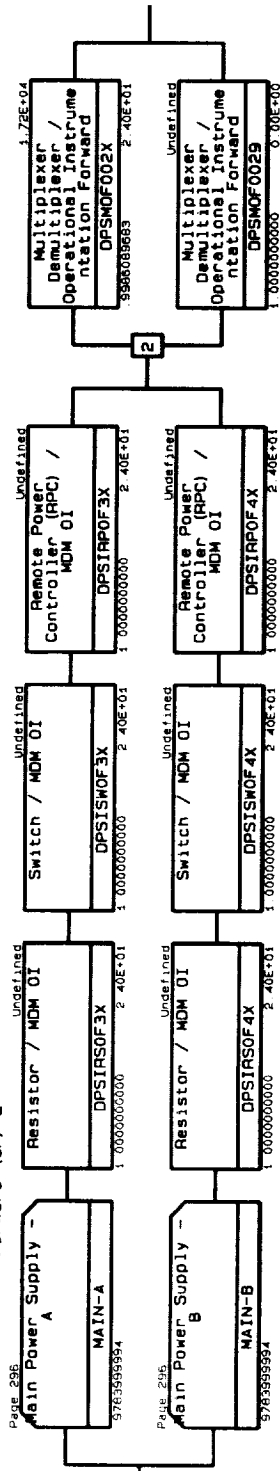
Module : MONOF-1

MTBF : N/A  
Exposure Time : N/A  
Prob. Success : 9981500000  
GT Source : MIST 12/08/92 13:51  
Description : Multiplexer Demultiplexer (MDM) Operational Forward (OF) 1



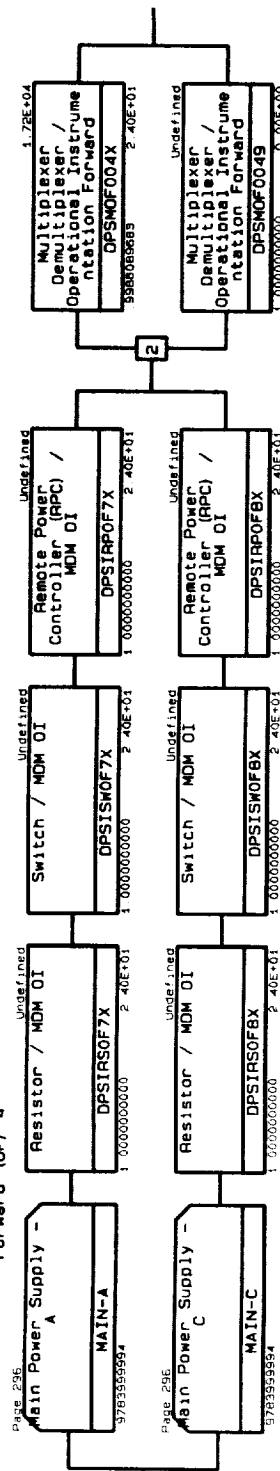
Module : MONOF-2

MTBF : N/A  
Exposure Time : N/A  
Prob. Success : 9981500000  
GT Source : MIST 12/08/92 13:51  
Description : Multiplexer Demultiplexer (MDM) Operational Forward (OF) 2

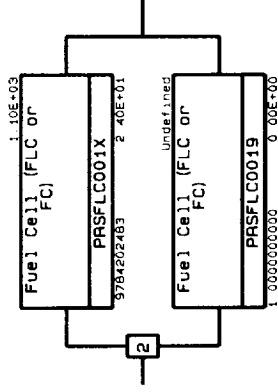


Module : MONOF-4

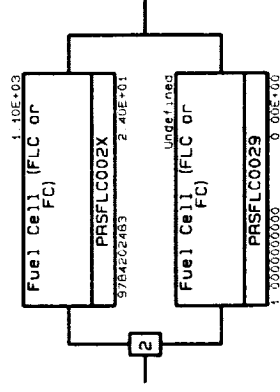
MTBF : N/A  
Exposure Time : N/A  
Prob. Success : 9981500000  
GT Source : MIST 12/08/92 13:51  
Description : Multiplexer Demultiplexer (MDM) Operational Forward (OF) 4



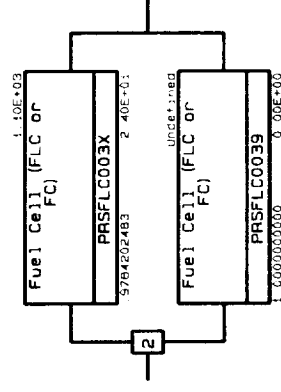
Module : FC-1  
MTBF : N/A  
Exposure Time : .9783999994  
Prob. Success : MIST 12/08/92 13: 51  
GT Source : Fuel Cell 1  
Description :



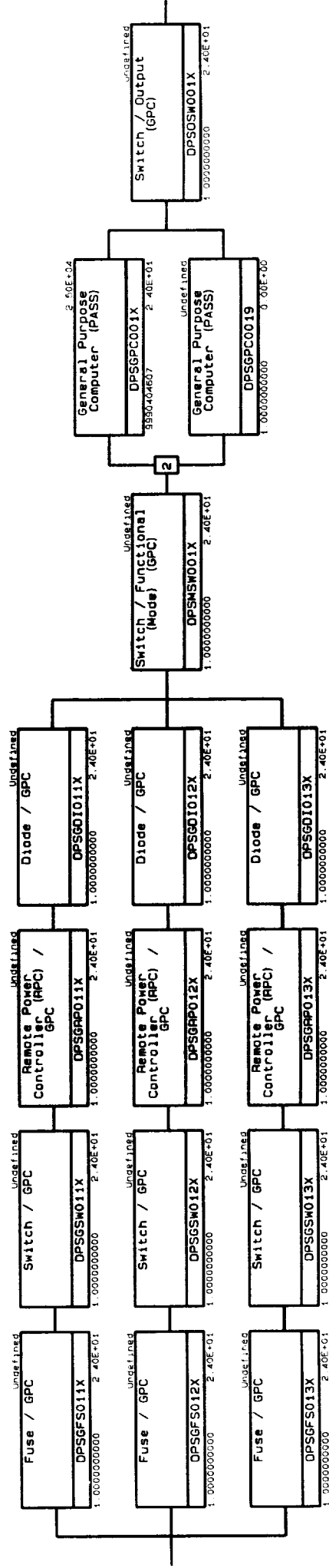
Module : FC-2  
MTBF : N/A  
Exposure Time : .9783999994  
Prob. Success : MIST 12/08/92 13: 51  
GT Source : Fuel Cell 1  
Description :



Module : FC-3  
MTBF : N/A  
Exposure Time : .9783999994  
Prob. Success : MIST 12/08/92 13: 51  
GT Source : Fuel Cell 1  
Description :

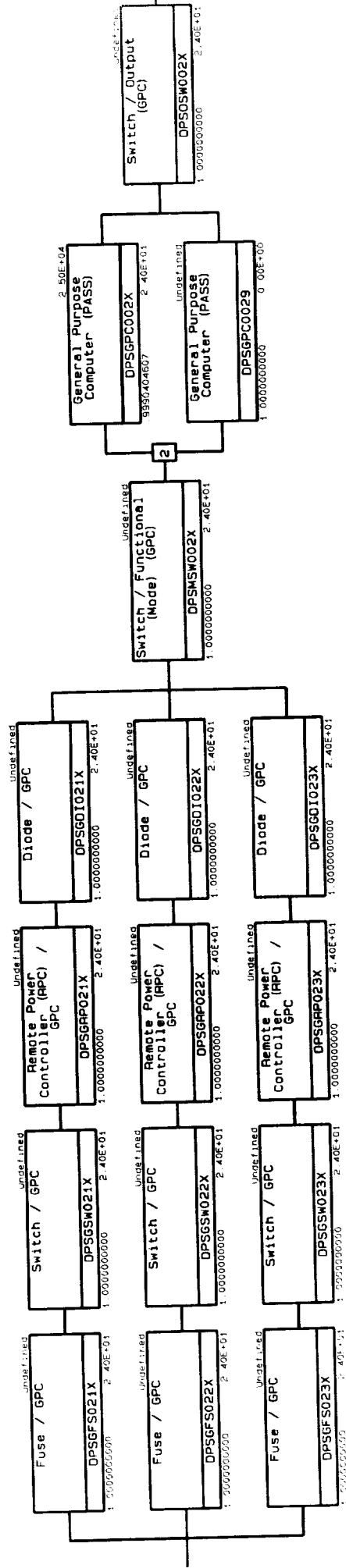


Module : GPC-1  
 MTBF : N/A  
 Exposure Time : .9990410000  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : General Purpose  
 Description : Computer (GPC) 1

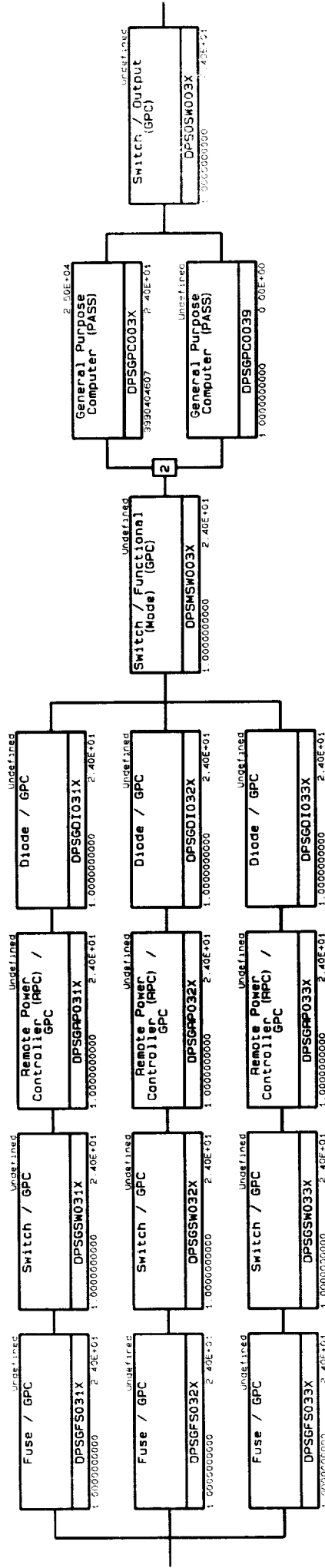




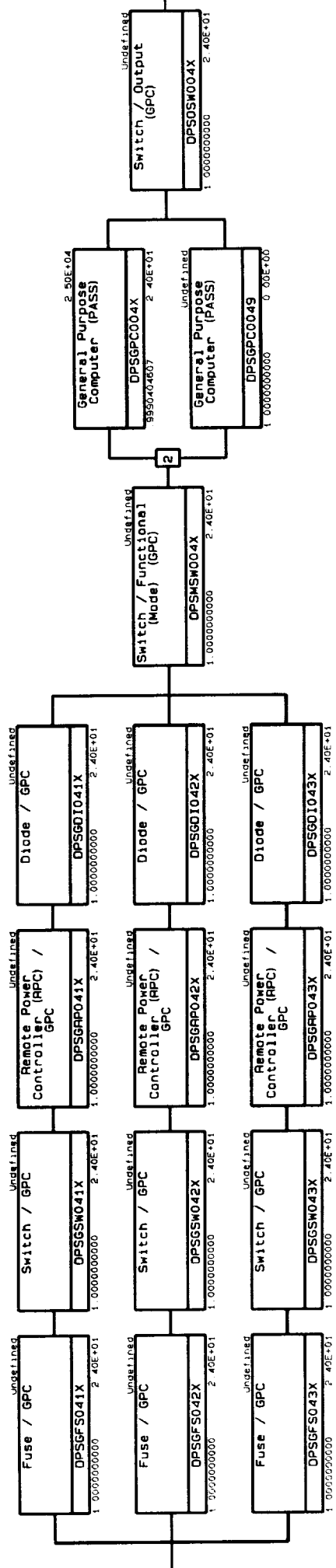
Module : GPC-2  
 MTBF : N/A  
 Exposure Time : 5990420000  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : General Purpose  
 Description : Computer (GPC) 2



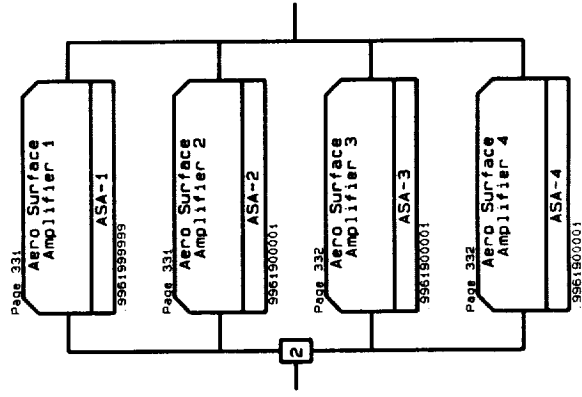
Module : GPC-3  
 MTBF : N/A  
 Exposure Time : 9990420000  
 Prob Success : MIST 12/08/92 13: 51  
 GI Source : General Purpose  
 Description : Computer (GPC) 3



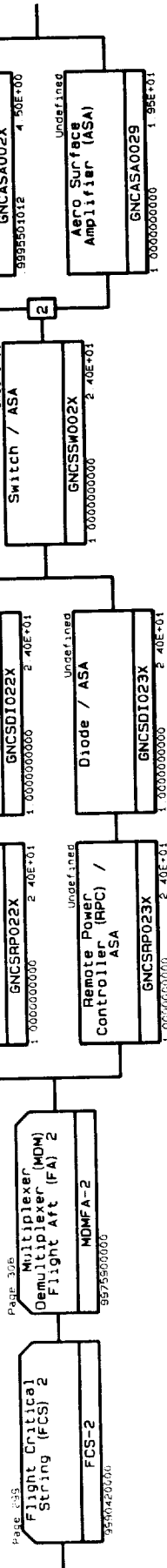
Module : GPC-4  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 9990420000  
 GI Source : MIST 12/08/92 13:51  
 Description : General Purpose Computer (GPC) 4



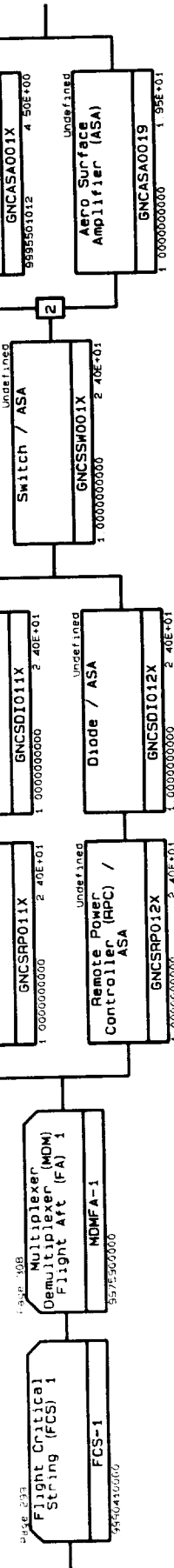
Module	ASA
MTBF	N/A
Exposure Time	9999885000
Prob Success	MIST 12/08/92 13: 51
GT Source	Aero Surface
Description	Amplifiers (ASAs)



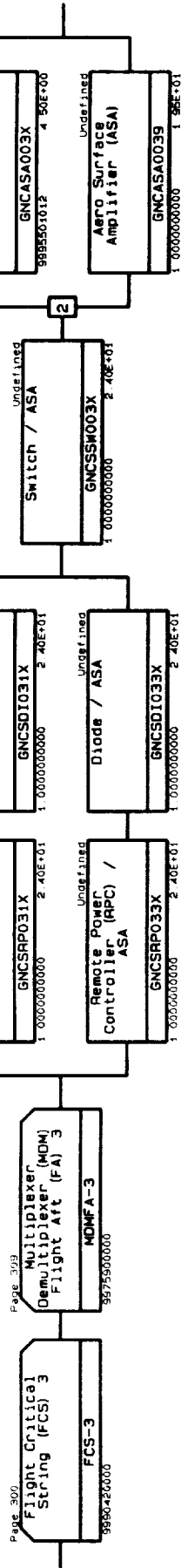
Module : ASA-2  
 MTBF : N/A  
 Exposure Time : 9961900001  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Aero Surface  
 Description : Amplifier 2



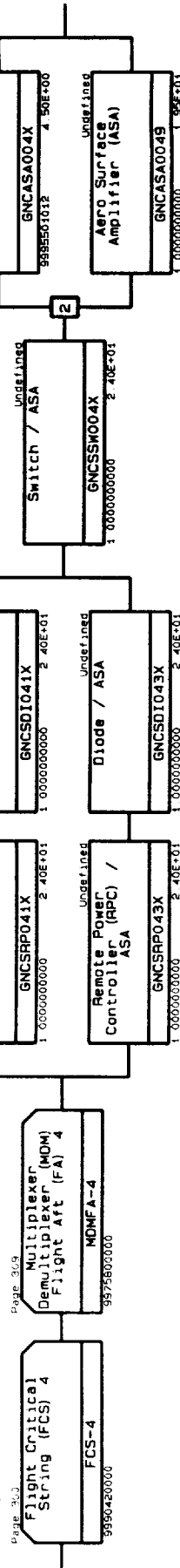
Module : ASA-1  
 MTBF : N/A  
 Exposure Time : 9961999999  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Aero Surface  
 Description : Amplifier 1



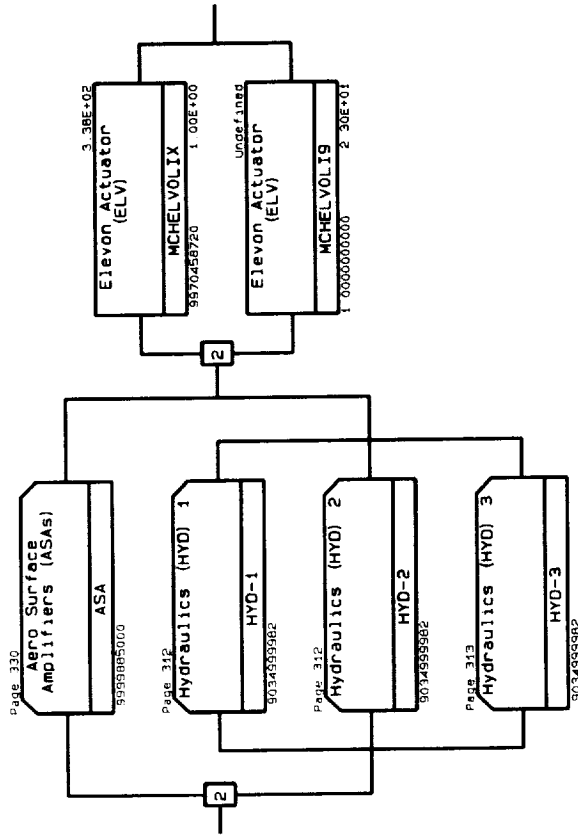
Module : ASA-3  
 MTBF : N/A  
 Exposure Time : .9961900001  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Aero Surface  
 Description : Amplifier 3



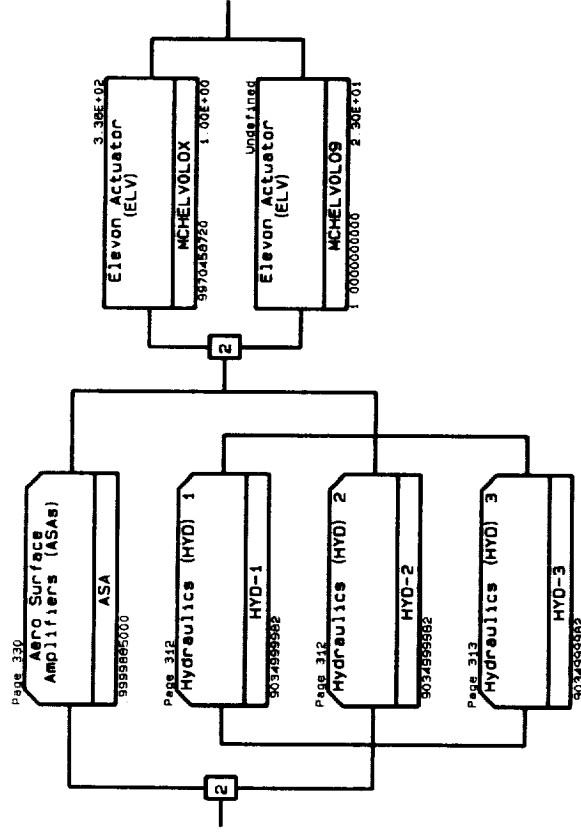
Module : ASA-4  
 MTBF : N/A  
 Exposure Time : .9961900001  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Aero Surface  
 Description : Amplifier 4



Module : L-I-ELEV  
 MTBF : N/A  
 Exposure Time : .996150000  
 Prob. Success : MIST 12/08/92 13:51  
 GT Source : Left Inboard Elevon  
 Description :

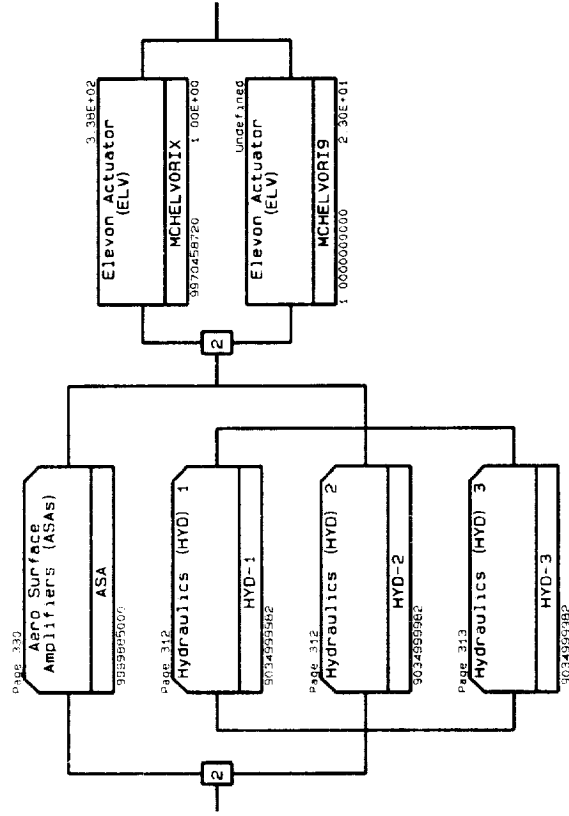


Module : L-O-ELEV  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 996150000  
 GT Source : MIST 12/08/92 13: 51  
 Description : Left Outboard Elevon

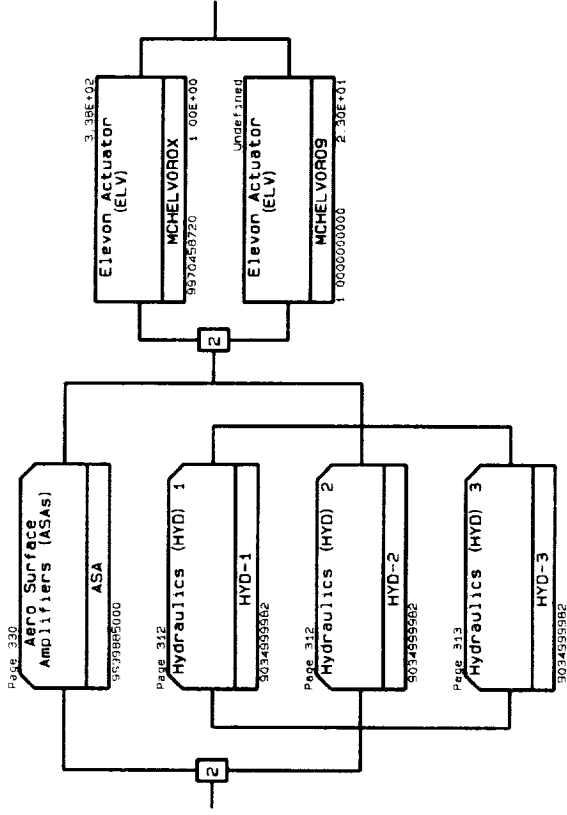




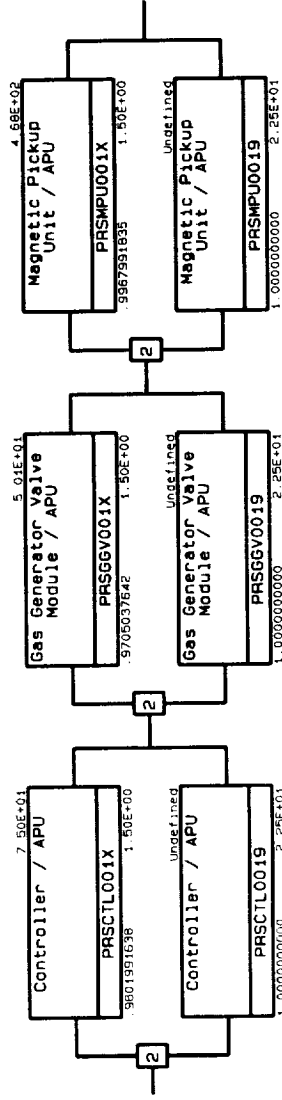
Module : R-I-ELEV  
 MTRF : N/A  
 Exposure Time : 9981500000  
 Prob. Success : MIST 12/08/92 13: 51  
 Description : Right Inboard Elevon



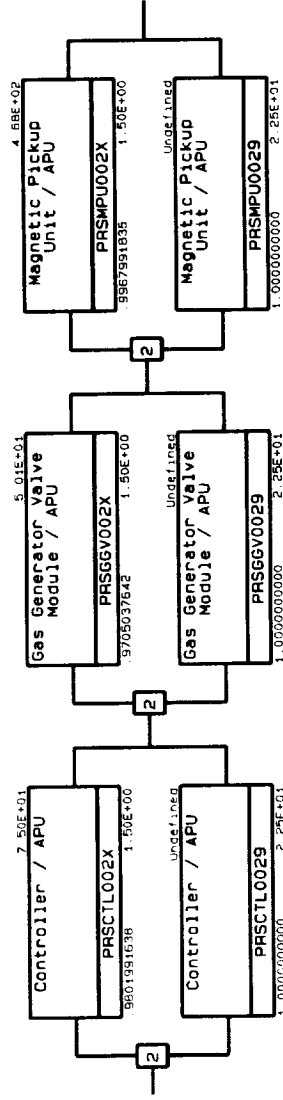
Module : R-O-ELEV  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 9961500000  
 CI Source : NIST 12/08/92 13:51  
 Description : Right Outboard Elevon



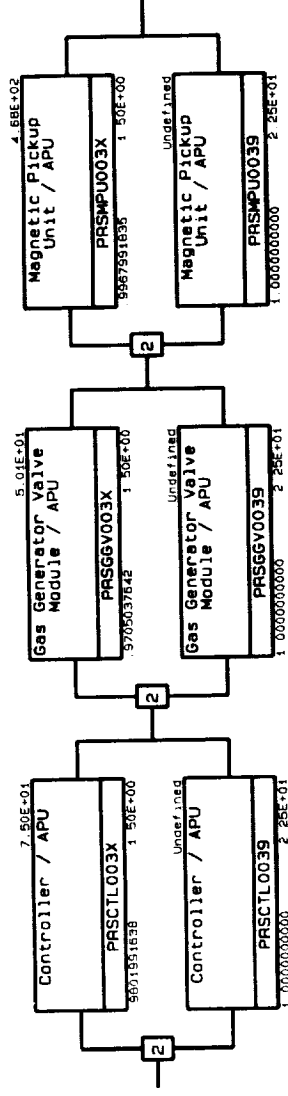
Module : APU-1  
 MTBF : N/A  
 Exposure Time : 9481999986  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Auxiliary Power  
 Description : Unit - 1



Module : APU-2  
 MTBF : N/A  
 Exposure Time : 9481999986  
 Prob. Success : MIST 12/08/92 13: 51  
 GT Source : Auxiliary Power  
 Description : Unit - 1



Module : APU-3  
 MTBF : N/A  
 Exposure Time : N/A  
 Prob. Success : 98199986  
 GT Source : M12/09/92 13:51  
 Description : Auxiliary Power  
 Unit - 1



## **Appendix 2:** **Hardware Data**

**MTBF in Hours and Methods**

<b>CNT</b>		
<b>DEC</b>	753	Calculated for field power on hours
<b>MLS</b>	2225	Product Specifications
<b>MLG</b>	2299	Product Specifications
<b>RAN</b>	> 50,000	Assumed from failure history data
<b>RDR</b>	4800	Product Specifications (based on vender historical data)
<b>RFA</b>	2654	Calculated for field power on hours
<b>TAC</b>	N/A	Assumed worked prior to Landing Phase
<b>TAN</b>	> 50,000	Assumed from failure history data
<b>DNC</b>		
<b>ADI</b>	23,004	Calculated with failure history data and operating time on powered units only
<b>AMI</b>	6217	Calculated with failure history data and operating time
<b>AVV</b>	13,532	Calculated with failure history data and operating time
<b>DDU</b>	2500	Calculated with failure history data and operating times
<b>HSI</b>	4108	Calculated with failure history data and operating time
<b>HUD</b>	1672	Calculated with failure history data and operating times
<b>SPI</b>	1475	Calculated with failure history data and operating times
<b>DPS</b>		
<b>GPC</b>	25,000	Calculated for field power on hours
<b>MFA</b>	12,250	Calculated for field power on hours
<b>MFF</b>	13,125	Calculated for field power on hours
<b>MOA</b>	27,562	Calculated for field power on hours
<b>MOF</b>	17,226	Calculated for field power on hours
<b>GNC</b>		
<b>ADT</b>	8889	Calculated as a system for field power on hours
<b>ASA</b>	10,000	Product Specification
<b>IMU</b>	1526	Calculated for field power on hours
<b>MTR</b>	> 50,000	Part of ADTA
<b>OAA</b>	10,000	Product Specification
<b>PRB</b>	> 50,000	Part of ADTA
<b>RGA</b>	8000	Product Specification
<b>RHC</b>	30,000	Product Specification
<b>RPT</b>	140,000	Product Specification
<b>SBT</b>	75,000	Product Specification
<b>SCB</b>	34,722	Calculated as a system from old NWS field power on hours (Part of NWS)
<b>SPA</b>	> 50,000	Part of NWS
<b>SPT</b>	> 50,000	Part of NWS
<b>MCH</b>		
<b>BCV</b>	516,000	Product Specification
<b>BDF</b>	138	Calculated with failure history data and operating time
<b>BSC</b>	9400	Calculated with failure history data and operating time

# **The Hardware Data**

<b>BSV</b>	414	Calculated with failure history data and operating time
<b>CRP</b>	1764	Calculated with failure history data and operating time
<b>ELV</b>	338	Calculated with failure history data and operating time
<b>FTR</b>	1917	Calculated with failure history data and operating time
<b>HFR</b>	> 50,000	No failure history
<b>IVL</b>	1,400,000	Product Specification
<b>MNP</b>	104	Calculated with failure history data and operating time
<b>RDB</b>	9400	Calculated with failure history data and operating time
<b>RSR</b>	23,071	Calculated with failure history data and operating time
<b>RSV</b>	207	Calculated with failure history data and operating time
<b>RUD</b>	207	Calculated with failure history data and operating time
<b>SBR</b>	207	Calculated with failure history data and operating time
<b>SSV</b>	207	Calculated with failure history data and operating time
<b>SVL</b>	1,400,000	Product Specification
<b>UPL</b>	50,000	Assumed from failure history data
<b>VLV</b>	1,400,000	Product Specification
<b>WNG</b>	> 50,000	Assumed
<b>WOW</b>	> 50,000	Assumed
<b>WSB</b>	82	Calculated with failure history data and operating time
<b>WSS</b>	300,000	Calculated with failure history data and operating time
<b>XDR</b>	225,000	Product Specification
<b>MED</b>		
<b>ADI</b>	23,004	Calculated with failure history data and operating time on powered units only
<b>MI</b>	6217	Calculated with failure history data and operating time
<b>AVV</b>	13,532	Calculated with failure history data and operating time
<b>HSI</b>	4108	Calculated with failure history data and operating time
<b>PRS</b>		
<b>CTL</b>	75	Calculated by Analysis Group
<b>FLC</b>	1100	MOD Product Specification
<b>GGV</b>	50.1	Calculated by Analysis Group
<b>MPU</b>	467.87	Calculated by Analysis Group
<b>TKS</b>	> 50,000	Assumed
<b>PYR</b>		
<b>DYN</b>	> 50,000	Assumed
<b>EPD</b>		
<b>CB</b>	> 50,000	Assumed
<b>DI</b>	> 50,000	Assumed
<b>FS</b>	> 50,000	Assumed
<b>RP</b>	150,000	Product Specification
<b>RS</b>	> 50,000	Assumed
<b>SW</b>	> 50,000	Assumed

## Power On Times for 30 Day Mission

<b>CNT</b>	
<b>DEC</b>	5.5 hours
<b>MLS</b>	5.5 hours
<b>MLG</b>	5.5 hours
<b>RAN</b>	5.5 hours
<b>RDR</b>	5.5 hours
<b>RFA</b>	5.5 hours
<b>TAN</b>	5.5 hours

<b>DNC</b>		
<b>ADI</b>	240 hours	33% of Flight time
<b>AMI</b>	240 hours	33% of Flight time
<b>AVV</b>	240 hours	33% of Flight time
<b>DDU</b>	240 hours	33% of Flight time
<b>HSI</b>	240 hours	33% of Flight time
<b>HUD</b>	1 hour	
<b>SPI</b>	240 hours	33% of Flight time

<b>DPS</b>		
<b>GPC</b>	720 hours	Entire Mission
<b>MFA</b>	720 hours	Entire Mission
<b>MFF</b>	720 hours	Entire Mission
<b>MOA</b>	720 hours	Entire Mission
<b>MOF</b>	720 hours	Entire Mission

<b>GNC</b>		
<b>ADT</b>	10 minutes	
<b>ASA</b>	4.5 hours	
<b>IMU</b>	720 hours	Entire Mission
<b>MTR</b>	10 minutes	
<b>OAA</b>	30 hours	
<b>PRB</b>	10 minutes	
<b>RGA</b>	30 hours	
<b>RHC</b>	144 hours	20% of Flight time
<b>RPT</b>	5.5 hours	
<b>SBT</b>	6 hours	
<b>SCB</b>	5.5 hours	
<b>SPA</b>	5.5 hours	
<b>SPT</b>	5.5 hours	



<b>MCH</b>		
<b>BCV</b>	1 minute	
<b>BDF</b>	48 minutes	
<b>BSC</b>	1 minute	
<b>BSV</b>	48 minutes	
<b>ELV</b>	1 hour	
<b>FTR</b>	70 minutes	
<b>IVL</b>	720 hours	Entire Mission
<b>MNP</b>	131 minutes	
<b>RDB</b>	1 minute	
<b>RSR</b>	720 hours	Entire Mission
<b>RSV</b>	48 minutes	
<b>RUD</b>	48 minutes	
<b>SBR</b>	48 minutes	
<b>SSV</b>	48 minutes	
<b>SVL</b>	1 minute	
<b>UPL</b>	1 minute	
<b>VLV</b>	1 minute	
<b>WNG</b>	1 minute	
<b>WOW</b>	1 minute	
<b>WSB</b>	164 minutes	
<b>WSS</b>	1 minute	
<b>XDR</b>	1 minute	

<b>PRS</b>		
<b>CTL</b>	90 minutes	
<b>FLC</b>	720 hours	Entire Mission
<b>GGV</b>	90 minutes	
<b>MPU</b>	90 minutes	
<b>TKS</b>	720 hours	Entire Mission

<b>PYR</b>		
<b>DYN</b>	1 minute	

<b>EPD</b>		
<b>CB</b>	720 hours	Entire Mission
<b>DI</b>	720 hours	Entire Mission
<b>FS</b>	720 hours	Entire Mission
<b>RP</b>	720 hours	Entire Mission
<b>RS</b>	720 hours	Entire Mission
<b>SW</b>	720 hours	Entire Mission



**Appendix 3:**  
**Flight Proposed for Autoland DTO (STS-53)**

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“ The attached flight rule was written to support the Autoland DTO that was scheduled to be performed on STS-53 in November, 1992. This rule was going to be submitted to the STS-53 flight rules annex, but was withheld upon cancellation of the DTO in September, 1992. This proposed rule was never published in an official NASA document. ”

DF62/Bradley J. Schoenbauer

## A2-XX AUTOLAND DTO NO-GO

THE AUTOLAND DTO WILL NOT BE PERFORMED UNLESS ALL SYSTEMS UTILIZED DURING THE DTO ARE SINGLE FAULT TOLERANT. PRIOR TO DTO INITIATION, FAILURE OF ANY OF THE SYSTEMS OR VIOLATION OF ANY OF THE CONSTRAINTS LISTED IN THE TABLE BELOW WILL RESULT IN A DTO NO-GO. IF A SYSTEM FAILURE OCCURS SUBSEQUENT TO DTO INITIATION, THE DTO WILL BE CONTINUED.

<b><u>APU/HYDRAULICS</u></b> 1 APU
<b><u>DISPLAYS</u></b> L HUD R HUD AND ANY R DEDICATED DISPLAY (ADI, AMI, AVVI, HSI)
<b><u>CONTROLLERS</u></b> RHC: 2 L CHs 2 R CHs <input type="checkbox"/> RPTA: 2 L CHs <input checked="" type="checkbox"/> 3 L CHs 2 R CHs <input type="checkbox"/>
<b><u>GNC</u></b> 2 AAs (LAT) 2 AAs (NORM) 2 RGAs 1 IMU 2 ADTAs ON SAME SIDE ADTA DLMA OR NOT INCORPORATED 1 MLS MLS NOT INCORPORATED 2 RAs FCS CHs: 2 ELEV 2 S/B 2 RUD R DDU: 2 POWER SUPPLYs (A, B, or C) <input type="checkbox"/>
<b><u>DPS</u></b> 3 CRTs GPC 1 (NOT RESTRUNG) GPC 2 (NOT RESTRUNG) GPC 3 (NOT RESTRUNG) 2 GPCs FF1 FF2 FF3 2 FAs
<b><u>LANDING/DECEL</u></b> TIRE (LEAK) NWS <input checked="" type="checkbox"/>
<b><u>TRIM</u></b> AIL > $\pm 1.5$ DEG

<b><u>DOWNMODE</u></b> FCS PROBLEM AOA
<b><u>ENERGY OFF-NOMINAL</u></b> NO A/L BY 6K
<b><u>PLB</u></b> PLBD LATCHES FAILED
<b><u>GROUND SYSTEMS</u></b> MCC COMM (MCC "GO" NOT RECEIVED) BALL BAR PAPI MLS JUNIOR GS REDUNDANCY
<b><u>WINDS</u></b> > 15 KNOTS PEAK XWIND > 10 KNOTS GUST (ANY DIRECTION)

## NOTES:

- ☐ TURN OFF RIGHT FLIGHT CONTROLLER POWER AND NWS. ROLLOUT PORTION OF DTO WILL BE NO-GO, BUT AIRBORNE PORTION IS GO.
- ☒ TURN OFF NWS. ROLLOUT PORTION OF DTO WILL BE NO-GO, BUT AIRBORNE PORTION IS GO.

*In order to minimize the likelihood of a low-altitude takeover by the crew, the Autoland DTO will not be initiated if the next system failure results in a vehicle attitude transient, or if it affects the approach and land trajectory significantly enough to make the crew question the system's ability to perform an acceptable landing. All systems that are utilized during the DTO must be single fault tolerant in order to satisfy these criteria.*

*Since the duration of the DTO is very short, it is unreasonable to assume that dual smart failures will occur between DTO initiation and touchdown. Therefore, once the DTO has been initiated, it will not be terminated for a subsequent system failure, since a safe landing can still be performed.*

*In determining the no-go criteria for the Autoland DTO, all of the go/no-go criteria that is included in Flight Rule in 2-100, ENTRY DTO/AUTO MODE/CROSSWIND DTO GO/NO-GO, has been considered. The only items documented in this rule are those which result in an Autoland DTO no-go.*

**1. APU/HYD****(a) 1 APU FAILED**

*Three hydraulics systems are needed to be fail safe. Having only two systems is not fail safe because the loss of the next hydraulic system will result in unacceptably low aerosurface drive rates (priority rate limiting).*

**2. DISPLAYS****(a) LEFT HUD FAILED**

*The HUD is the primary data source for monitoring Autoland.*

**(b) RIGHT HUD FAILED AND ANY RIGHT DEDICATED DISPLAY FAILED (ADI, AMI, AVVI, HSI)**

*The pilot can assess flight control and the nav state with either the HUD or a full complement of dedicated displays.*

**3. CONTROLLERS**

## The DTO Flight Rule

### (a) 2 LEFT RHC CHANNELS FAILED

With 2 left RHC channels failed, CDR takeover capability might not exist (left RHC is no-oped) and the next failure affects flight control, so the DTO is no-go. With only one channel failed, next-worst failure no-ops RHC, but does not force downmode to CSS.

### (b) 2 RIGHT RHC CHANNELS FAILED

With 2 right RHC channels down, single-fault tolerance is lost. NWS and the right flight controller power will be turned off. The resulting loss of NWS will no-go the rollout portion of the DTO, but will not affect the airborne portion of the DTO. (Reference rules 10-90.E, NOSE WHEEL STEERING, and 8-50, CONTROLLERS).

### (c) 2 LEFT RPTA CHANNELS FAILED

With 2 left RPTA channels down, the next worst failure has no impact if in AUTO, but will significantly impact flight control if in R/Y CSS. Therefore, AUTO is preferred mode and DTO is still go. The CDR is still go for CSS takeover, if required. NWS will be turned off for this case, so the rollout portion of the DTO will not be performed. (Reference rule 10-90.E, NOSE WHEEL STEERING).

### (d) 3 LEFT RPTA CHANNELS FAILED

If all 3 left RPTA channels have failed, the left flight controller power must be turned off, so the DTO is no-go.

### (e) 2 RIGHT RPTA CHANNELS FAILED

With two channels down, single fault tolerance is lost. NWS and the right flight controller power will be turned off. This will no-go the rollout portion of the DTO, but the airborne portion will still be go. (Reference rule 10-90.E, NOSE WHEEL STEERING).

## 4. GNC

### (a) 2 AAs FAILED (LAT OR NORM)

Require 3 AAs to be fail safe. At the two-level, the next failure affects flight control.

### (b) 2 RGAs FAILED

Require 3 RGAs to be fail safe. At the two-level, the next failure affects flight control.

### (c) 1 IMU FAILED

Require 3 IMUs to be fail safe. If only 2 IMUs are available, an unacceptable transient occurs if another IMU fails.

### (d) 2 ADTAs FAILED ON SAME SIDE

If the only remaining ADTAs are on the same side, a probe problem could result in bad air data being fed into the system with no annunciation of a problem. If at least one ADTA is available on each side, the next-worst failure would result in a dilemma. SES Studies have shown that dilemmas that occur below 10k feet will not impact flight control and will not affect the A/L trajectory significantly enough to result in crew takeover or an unacceptable AUTO landing.

### (e) AIR DATA DILEMMA OR NOT INCORPORATED

Air data is required to ensure that flight control and the nav state are acceptable prior to initiating the DTO. If a dilemma occurs after initiation, the DTO can be continued.

### (f) 1 MLS FAILED

Require 3 MLS to be fail safe. At the two-level, the next failure would inhibit MLS processing.

### (g) MLS NOT INCORPORATED

MLS data is required for AUTO flight control.

### (h) 2 RAs FAILED

Two independent sources (ball bar and at least one RA) of inner glideslope altitude are required to monitor Autoland.

### (i) 2 FCS CHANNELS FAILED ON SAME SURFACE (ELEVON, SPEEDBRAKE, RUDDER)

*Require 3 FCS channels to be fail safe. Committing to the DTO with two body flap command channels failed is acceptable, since the body flap remains at trail from A/L interface through rollout.*

**(j) 2 RIGHT DDU POWER SUPPLIES FAILED**

*2 of 3 power supplies on the right DDU are required for NWS. NWS and the right flight controller power will be turned off in this case. The resulting loss of NWS will no-go the rollout portion of the DTO, but the airborne portion will still be go. (Reference rules 10-90.E, NOSE WHEEL STEERING, and 8-50, CONTROLLERS).*

**5. DPS**

**(a) 3 CRTs FAILED**

*CRT interface required to monitor trajectory and guidance phases.*

**(b) GPC 1, 2, OR 3 FAILED (RESTRING NOT PERFORMED)**

*Loss of IMU and MLS. If a restringing is performed, single fault tolerance is recovered.*

**(c) 2 GPCs FAILED**

*Not single fault tolerant for IMUs or FCS channels. A restringing would not regain single fault tolerance.*

**(d) MDM FF1, FF2, OR FF3 FAILED**

*Loss of IMU and MLS.*

**(e) 2 FA MDMs FAILED**

*Loss of 2 RGAs and FCS channels.*

**6. LANDING/DECEL**

**(a) TIRE LEAK OR FAILURE**

*Tire leaks or failures on either the MLG or NLG could result in control problems during both touchdown and rollout.*

**(b) NWS FAILED**

*The loss of NWS will no-go the rollout portion of the DTO, but the airborne portion is still go. Redundant NWS is not required for the rollout portion.*

**7. TRIM**

**(a) AILERON TRIM >  $\pm 1.5$  DEGREES**

*Off-nominal FCS control situation.*

**8. DOWNMODE**

**(a) FCS PROBLEM**

*Off-nominal FCS control situation.*

**(b) AOA**

*It is not prudent to perform the DTO in unplanned situations.*

**9. ENERGY OFF-NOMINAL**



## The DTO Flight Rule

### (a) NO APPROACH/LAND BY 6K FEET

*If A/L transition has not occurred before 6k feet, the vehicle energy is off-nominal. Since transition is forced at 5k feet, selecting 6k as the no-go point allows the crew to easily distinguish between a nominal and forced transition.*

## 10. PLB

### (a) PLBD LATCHES FAILED

*If PLBD latch gang failures occur, the crew is required to fly approach and land in CSS. (Reference rules 10-104, PLBD CRITICAL LATCHES, and 2-98, ENTRY LOAD MINIMIZATION).*

## 11. GROUND SYSTEMS

### (a) MCC COMM LOST

*MCC will give the crew a "go" for the DTO while they are on the HAC. If loss of comm prevents the MCC go call, the DTO should not be performed, since the crew cannot be certain that all ground and on-board systems meet the DTO requirements. If comm is lost after the MCC go call, the DTO should be performed, assuming no subsequent failures are seen by the crew.*

### (b) BALL BAR FAILED

*Ball bar is required for monitoring inner glideslope (IGS).*

### (c) PAPI FAILED

*PAPI is required for monitoring outer glideslope (OGS).*

### (d) MLS JUNIOR GS REDUNDANCY LOST

*Redundant MLS Jr. ground stations are required in order to be fail safe.*

## 12) WINDS

- (a) *Wind limits for the DTO are consistent with the limits for planned daylight landings at Edwards with the crew flying CSS. (Reference rule 4-64, LANDING SITE WEATHER CRITERIA).*

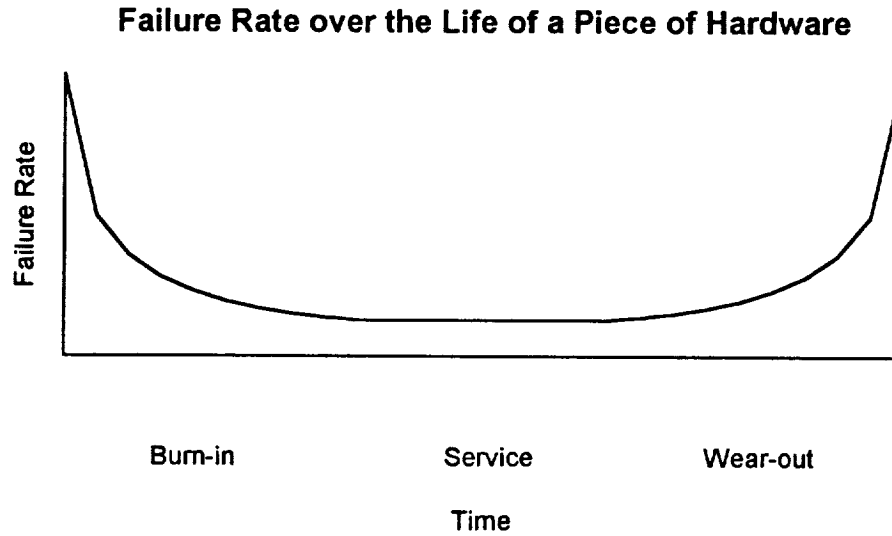


**Appendix 4:**  
**The Weibull Distribution**

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## Analysis Based on a Weibull Distribution

The "Bathtub Curve" represents the failure rate of a piece of hardware during three phases of useful equipment life. These are burn-in, service life, and wear-out, where the failure rate is the reciprocal of the MTBF.

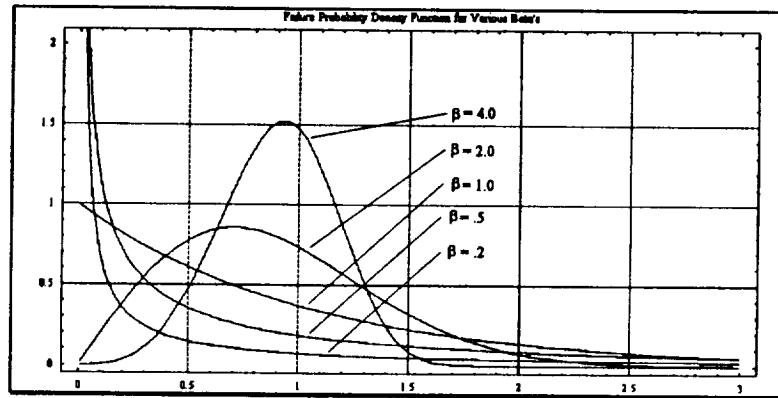


The Weibull distribution will model each of these regions and can determine when a type of hardware has emerged from the infant mortality region (burn-in), as well as when it enters the wear-out region. However, the methods used to determine these transitions require more than a brief presentation of the Weibull distribution since each region is modeled separately. To better understand this distribution, let's look at the probability density function (PDF).

$$f(t) = \left[ \frac{\beta}{\eta^\beta} \right] t^{\beta-1} e^{-\left(\frac{t}{\eta}\right)^\beta} \quad \text{for } t \geq 0, \text{ otherwise } f(t) = 0 \quad (9)$$

Where  $\beta$  is called the shape factor and  $\eta$  is called the characteristic life. The characteristic life is the time for which the probability of failure is 63.2%.

The graph below shows the PDF for various  $\beta$ 's.



The PDF represents the failure distribution exhibited by the hardware population. New hardware that exhibits infant mortality will show a large portion of the failures occurring early. As the hardware approaches the usable service life the failures will show an exponential distribution (constant failure rate). Older hardware exhibiting the results of wear-out shows an increasing failure rate with time. Each of the above plots is normalized to the characteristic life, and the area under each curve from 0 to  $+\infty$  is always equal to 1.0. In other words, from time zero to infinity there is a 100% probability that an item will have failed.

The area under each of the curves from 0 to some time  $t$  would be the cumulative failure distribution up to the time  $t$ . Therefore the area would be:

$$F(t) = \int_0^t f(t) dt \quad (10)$$

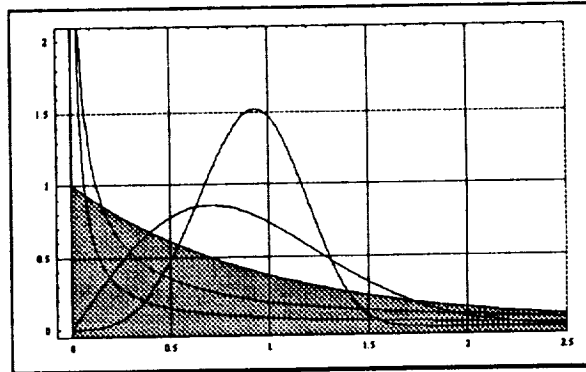
This is the probability of failure in the time interval 0 to  $t$  and is referred to as the cumulative density function (CDF).

Therefore, since the total area is equal to 1, and the CDF is the area to time  $t$ , then the reliability (probability of operation without failure) would be the area from time  $t$  to  $\infty$  (the surviving population).

$$I = F(t) + R(t)$$

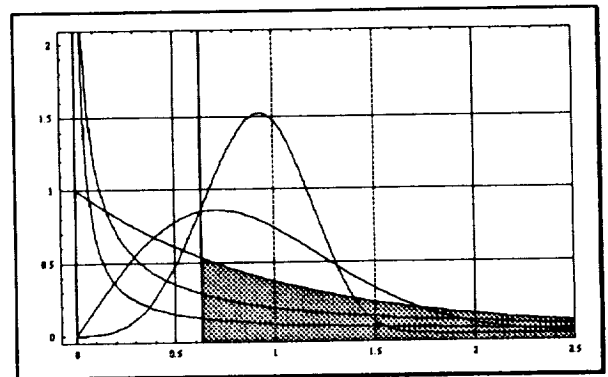
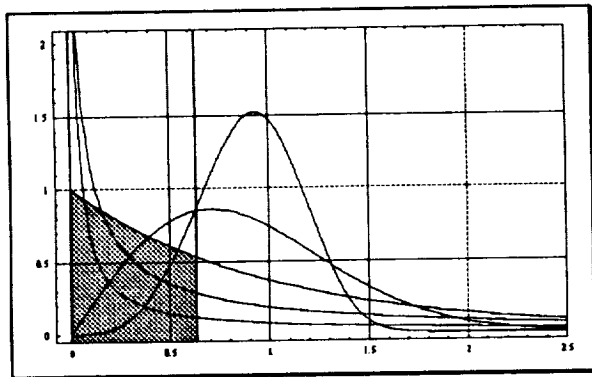
For example, in the case where  $\beta = 1$ :

The area under the curve would be:



While the probability of failure would be the area from time = 0 to time = t.

Then the probability of success would be the area from time = t to time =  $\infty$ .



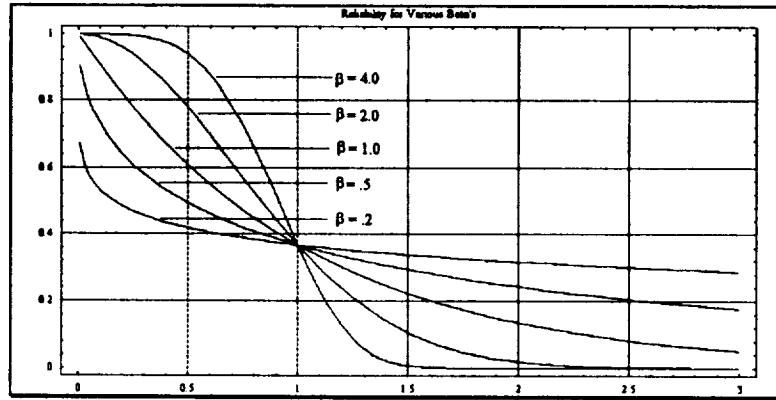
Therefore:

$$R(t) = \int_t^{\infty} f(t) dt$$

$$R(t) = \int_t^{\infty} \left( \frac{\beta}{\eta^\beta} \right) t^{\beta-1} e^{-\left( \frac{t}{\eta} \right)^\beta} dt$$

$$R(t) = e^{-\left( \frac{t}{\eta} \right)^\beta} \quad (11)$$

The following graph shows the reliability for various  $\beta$ 's.



The failure rate during an interval  $\Delta t$  is an average since it is the fraction of units that are operational at time  $t$  and fail in the interval  $\Delta t$ , where the instantaneous failure rate (or hazard rate) is the rate of failure at some time  $t$ . This is the probability of failure during the time interval from  $t$  to  $t+\Delta t$ , provided that the unit survived up to time  $t$ .

$$\text{Since } F(t + \Delta t) - F(t) = R(t) - R(t + \Delta t)$$

Then during the interval  $\Delta t$ , the average failure rate would be:

$$\Lambda(t) = \frac{R(t) - R(t + \Delta t)}{R(t) \cdot \Delta t} \quad (12)$$

Taking the limit  $\Delta t \rightarrow 0$  gives the Instantaneous Failure Rate.

$$\lambda(t) \equiv \lim_{\Delta t \rightarrow 0} (\Lambda(t)) = \lim_{\Delta t \rightarrow 0} \left( \frac{R(t) - R(t + \Delta t)}{R(t) \cdot \Delta t} \right)$$

$$\lambda(t) = -\frac{1}{R(t)} \cdot \frac{dR(t)}{dt}$$

$$\text{Since } \int \frac{1}{u} du = \ln(u)$$

$$\lambda(t) = -\frac{d}{d(t)} \ln(R(t)) = -\frac{d}{d(t)} \ln \left( \int_t^{\infty} \left( \frac{\beta}{\eta^\beta} \right) t^{\beta-1} e^{-\left(\frac{t}{\eta}\right)^\beta} dt \right)$$

$$\lambda(t) = \frac{\beta}{\eta^\beta} t^{(\beta-1)} \quad (13)$$

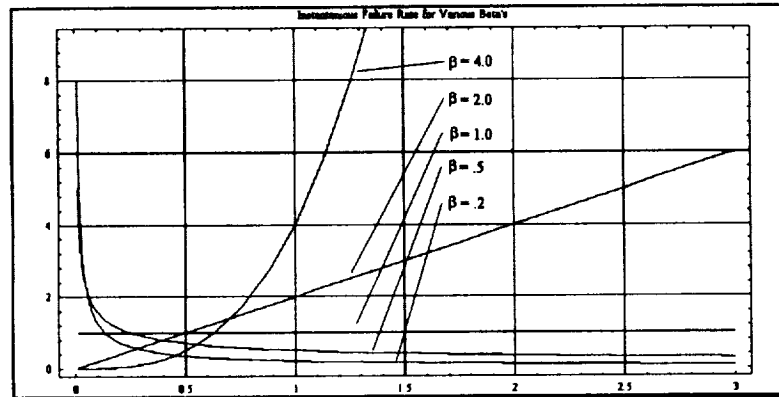
When  $\beta < 1$ , the hazard rate is decreasing with time.

When  $\beta > 1$ , the hazard rate is increasing with time.

When  $\beta = 1$ , the hazard rate is constant (equivalent to the exponential distribution).

Additionally when  $\beta \cong 3.5$ , the failure rate approximates the normal distribution.

The following graph shows the hazard rate for various  $\beta$ 's.



For a single Weibull distribution  $\beta$  and  $\eta$  are constants. To model different regions (such as wear-out)  $\beta$  will be a different constant. Using this parameter the onset of the end-of-life can be determined.



## **Appendix 5:** **Coding Scheme**

The Basic Event code is ten characters long. The Type code is eight characters long. The codes are listed below using the following scheme.

**A B C D E F G H I J Basic Event Code**

**A B C D E F J Type Code**

**A B C - System Code**

**D E F - Subsystem Code**

**G H I - Unique Basic Event Identifier Code**

**G - Reconfiguration Level Code**

**H,I - Uniquely Identifies the Basic Event**

**J - Failure Mode Code**

Reconfiguration is accomplished by developing separate models for the hardware that could be reconfigured. Concatenating or "importing" this information at the time of evaluation eliminates the editing time that would be required to change one model to all the possible configurations. This also provides the ability to re-evaluate the system upon identification/definition of any new models in a minimal amount of time.

The reconfiguration level code is used to identify the number of failures required to get to any particular level of reconfiguration. To determine the "total" number of failures at the end of the mission to arrive at a specific cut set, the sum of these positions in a cut set can be tallied and added to the cut set to determine the "complete scenario."

#### **CNT - Communication and Tracking**

**DEC - MSBLS Decoder (Part of the Navigation Set)**

**MLG - (MSBLS) Microwave Scanning Beam Landing System - Ground Station**

**MLS - (MSBLS) Microwave Scanning Beam Landing System - Navigation Set**

**RAN - Antenna - Receiver (Part of the RDR)**

**RFA - MSBLS Radio Frequency Assembly (Part of the Navigation Set)**

**RDR - Radar Altimeter**

**TAC - (TACAN) Tactical Command Air Navigation**

**TAN - Antenna - Transceiver (Part of the RDR)**

#### **Failure Modes**

Loss of Output

Erroneous Output

Blanking Pulse Fails OFF

**DNC - Displays and Controls**

(Note: Switches and circuit breakers fall within each subsystem, so they are listed beneath the EPD category even though they are DNC equipment.)

ADI - Attitude Director Indicator

AMI - (AMI/E) Alpha Mach Indicator

AVV - (AVVI/E) Altitude Vertical Velocity Indicator

DDU - Display Driver Unit

HSI - Horizontal Situation Indicator

HUD - Head Up Display

SPI - Surface Position Indicator

Failure Modes

Loss of Output

Erroneous Output

**DPS - Data Processing System**

GPC - General Purpose Computer

MFA - MDM Flight Aft

MFF - MDM Flight Forward

MDM - Multiplexer Demultiplexer - Generic

MOA - MDM Operational Instrumentation Aft

MOF - MDM Operational Instrumentation Forward

Failure Modes

Loss of Output

Erroneous Output

**GNC - Guidance, Navigation and Control**

ADT - (ADTA) Air Data Transducer Assembly  
 ASA - Aero Surface Amplifier  
 IMH - IMU HAINS  
 IMK - IMU KT-70  
 IMU - Inertial Measurement Unit - Generic  
 MTR - Motor (ADTA)  
 NWS - Nose Wheel Steering System  
 OAA - Orbiter Accelerometer Assembly  
 PRB - Probe - ADT  
 RGA - Rate Gyro Assembly  
 RHC - Rotation Hand Controller  
 RPT - (RPTA) Rudder Pedal Transducer Assembly  
 SBT - (SBTC) Speed Brake / Thrust Control  
 SCB - Steering Control Box  
 SPA - Steering Position Amplifier  
 SPT - Steering Position Transducer

**Failure Modes**

Loss of Output  
 Erroneous Output

**MCH - Mechanical Systems**

BCV - Brake/Skid Control Valve  
 BDF - Body Flap PDU  
 BSC - Brake/Skid Control Box  
 BSV - Servo Valve - BDF  
 CRP - Circulation Pump  
 ELV - Elevon Actuator  
 FTR - Filter - HYD  
 HFR - Hydraulic Fluid Regulator / Brakes  
 IVL - ISO Valve / Brakes  
 MNP - Main Pump - HYD  
 RDB - Redundant WOW Detector Box - WOW  
 RSR - Reservoir - HYD  
 RSV - Servo Valve - RUD  
 RUD - Rudder PDU  
 SBR - Speed Brake PDU  
 SSV - Servo Valve - SBR  
 SVL - Selector Valve / Brakes  
 UPL - Uplock on landing gear (either Main or Nose)  
 VLV - ISO Valve / HYD-1  
 WNG - Weight on Nose Gear Sensor  
 WOW - Weight on Wheels (Main Landing Gear) Sensor  
 WSB - Water Spray Boiler - HYD

**WSS - Wheel Speed Sensor (Redundant WOW)**

**XDR - Transducer / Brakes**

Failure Modes

- Loss of Output
- Erroneous Output
- Structural Failure of Actuator Attachment
- Actuator Piston Jammed
- External Leakage
- Fails Open (Leakage)
- Fails Closed (Poppet)
- Fails Closed (solenoid valve # 1 and/or 2)
- Fails Closed
- Fails in Bypass Position (Bypass Valve)
- Fails in Steering Position (Bypass Valve)
- Fails Closed (during steering operation)
- Fails Open (during NLG retraction)
- Clogged
- Fails Open (Check Valve)

**PRS - (PRSD) Power Reactant Storage and Distribution**

APU - Auxiliary Power Unit

CTL - Controller / APU

FLC - Fuel Cells

GGV - Gas Generator Valve Module (GGVM) / APU

MPU - Magnetic Pickup Unit / APU

TKS - Tank Sets

Failure Modes

- Loss of Output
- Erroneous Output

**PYR - Pyrotechnics**

DYN - Dynamite

Failure Modes

- Loss of Output (fail to detonate)
- Erroneous Output (partial or mis-detonation)

- \* **EPD** - Electrical Power Distribution & Control (EPDC) parts,  
 EEE parts and Displays & Controls (D&C) parts  
 CB - Circuit Breaker (D&C)  
 DI - Diode (EEE)  
 FS - Fuse (EEE)  
 RP - Remote Power Control (RPC) (EPD&C)  
 RS - Resistor (EEE)  
 SW - Switch (D&C)

#### Failure Modes

Loss of Output  
 Erroneous Output  
 Fails Open  
 Shorts (End to End)  
 Shorts to Ground  
 Fails Closed  
 Inadvertent Output (Fails to turn "OFF")

#### Generic Failure Modes

X	No failure - Generic
0	Total failure - Type not known or listed
1	Loss of Output
2	Erroneous Output
3	Fails Open
4	Fails Closed
5	
6	
7	
8	Soft Failure
9	Fails Off

- \* The EPD parts (as defined above) will be listed underneath the system using them in the nomenclature.

**Appendix 6:**  
**Model Configurations/Reconfigurations**

**Flight Critical Strings (FCS) - Reconfigure GPCs to Strings**

GPC Module	Loss	FCS1	FCS2	FCS3	FCS4
1	None	1	2	3	4
2	GPC 1	2	2	3	4
3	GPC 1	3	2	3	4
4	GPC 1	4	2	3	4
5	GPC 2	1	3	3	4
6	GPC 2	1	4	3	4
7	GPC 3	1	2	4	4
8	GPCs 1 & 2	3	3	4	4
9	GPCs 1 & 2	3	4	3	4
10	GPCs 1 & 2	3	4	4	3
11	GPCs 2, 3 & 4	1	1	1	1

**Main Power Supplies - Reconfigure Fuel Cells**

EPD Module	Loss	Main A	Main B	Main C
1	None	1	2	3
2	FC 1	2	2	3
3	FC 1	3	2	3
4	FC 2	1	3	3
5	FCs 2 & 3	1	1	1

The pilot "man-in-the-loop" models assume that both commander and pilot are available. They are implemented to evaluate the redundancy provided by the flight instruments, since one will be "heads-up" and the other will be "heads-down".



## **Appendix 7:** **FMEA/CILs**

## FMEA/CILs Evaluated

### SUBSYSTEM: CNT - Communications and Tracking

LRU: MSBLS Decoder (Part of the Navigation Set)

AUTOLAND #: CNTDEC00#x

PART #: MC409-0017-0006/0008

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-2F-22400-1	Loss of Output	1R2	
05-2F-22400-2	Erroneous Output	1R2	

LRU: MSBLS Radio Frequency Assembly (Part of the Navigation Set)

AUTOLAND #: CNTRFA00#x

PART #: MC409-0017-0003/0007

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-2F-22500-1	Loss of Output	1R2	

### SUBSYSTEM: DPS - Data Processing System

LRU: General Purpose Computer

AUTOLAND #: DPSGPC00#x

PART #: MC615-0025-0202

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-5-B11-1-1	Loss of Output	1R2	
05-5-B11-1-2	Erroneous Output	1/1	

LRU: Multiplexer Demultiplexer (Flight Aft)  
 AUTOLAND #: DPSMDA00#x  
 PART #: MC615-0004-5210/6210

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-5-B03-1-1	Loss of Output	1R2	
05-5-B03-1-2	Erroneous Output	1/1	

LRU: Multiplexer Demultiplexer (Flight Forward)  
 AUTOLAND #: DPSMDF00#x  
 PART #: MC615-0004-5110/6110

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-5-B03-2-1	Loss of Output	1R3	
05-5-B03-2-2	Erroneous Output	1/1	

## SUBSYSTEM: GNC - Guidance, Navigation and Control

LRU: Air Data Transducer Assembly (ADTA)  
 AUTOLAND #: GNCADT00#x  
 PART #: MC409-0011-0006

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-1GN28-1	Loss of Output	1R3	
05-1GN28-2	Erroneous Output	1R3	

LRU: Aero Surface Amplifier  
 AUTOLAND #: GNCASA00#x  
 PART #: MC621-0043-6046

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-1FC6042-1	Loss of Output	1R2	
05-1FC6042-2	Erroneous Output	1R2	

LRU: Inertial Measurement Unit - HAINS  
 AUTOLAND #: GNCIMH00#x  
 PART #: MC409-0004-0004

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-1-GN21-1	Loss of Output	1R3	
05-1-GN21-2	Erroneous Output	1R2	

LRU: Inertial Measurement Unit - KT-70  
 AUTOLAND #: GNCIMK00#x  
 PART #: MC409-0004-0010

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-1-GN21-1	Loss of Output	1R3	
05-1-GN21-2	Erroneous Output	1R2	

LRU: Nose Wheel Steering  
 AUTOLAND #: GNCNWS00#x  
 PART #: MC621-0058-0015

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
02-1C-088-1	Loss of Output	1R2	
02-1C-088-2	Erroneous Output	1R2	

LRU: PROBE - ADTA  
 AUTOLAND #: GNCPRB0(L/R)#x  
 PART #: MC432-0206-0005

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
02-4-051000-1	Loss of Output	1R2	
02-4-051000-2	Structural Fail/Physical Jamming	1R2	

LRU: Rate Gyro Assembly  
AUTOLAND #: GNCRGA00#x  
PART #: MC493-0015-0011

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
05-1-FC1042-1	Loss of Output	1R3	
05-1-FC1042-2	Erroneous Output	1R2	

## SUBSYSTEM: MCH - Mechanical Systems

LRU: Body Flap Actuator  
AUTOLAND #: MCHBDF00#x  
PART #: MC621-00056

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
None			

LRU: Elevon Actuator  
AUTOLAND #: MCHELV00#x  
PART #: MC621-0014

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
None			

LRU: Nose Landing Gear / Nose Wheel Steering Actuator  
 AUTOLAND #: MCHNLG00#x  
 PART #: MC621-0058-0019

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
02-ID-192-01	Loss of Output		1/1
02-ID-192-02	Erroneous Output		1/1
02-ID-184-01	Structural Failure of Actuator Attachment		1/1
02-ID-184-02	Actuator Piston Jammed		1/1
02-ID-190-01	External Leakage		1/1
02-ID-191-02	Fails Open (Leakage)		1/1
02-ID-194-01	Fails Closed (Poppet)		1/1
02-ID-195-01	Fails Closed (solenoid valve # 1 and/or 2)		1/1
02-ID-196-01	Fails Closed		1/1
02-ID-200-01	Fails in Bypass Position (Bypass Valve)		1R2
02-ID-200-02	Fails in Steering Position (Bypass Valve)		1/1
02-ID-201-01	Fails Closed (during steering operation)		1/1
02-ID-201-02	Fails Open (during NLG retraction)		1/1
02-ID-203-01	Clogged		1/1
02-ID-206-02	Fails Open (Check Valve)		1/1

LRU: Rudder Actuator  
 AUTOLAND #: MCHRUD00#x  
 PART #: MC621-0053

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
None			

LRU: Speed Brake Actuator  
 AUTOLAND #: MCHSBR00#x  
 PART #: MC621-0053

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
None			

LRU: Weight on Nose Gear Sensor  
AUTOLAND #: MCHWNG00#x  
PART #: MC452-0124-0008

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
None			

LRU: Weight on Wheels (Main Landing Gear) Sensor  
AUTOLAND #: MCHWOW00#x  
PART #: MC452-0124-0005

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
None			

LRU: Wheel Speed Sensor (Redundant for WOW)  
AUTOLAND #: MCHWSS00#x  
PART #: MC621-0055-0026 (Control Box)  
MC621-0055-0005 (WSS)

<u>FMEA/CIL#</u>	<u>FAILURE MODE</u>	<u>Criticality</u>	
		<u>Present</u>	<u>Autoland</u>
None			

## EPD - Electrical Power Distribution & Control (EPD&C) and EEE parts

CB - Circuit Breaker  
DI - Diode  
FS - Fuse  
RP - Remote Power Control (RPC)  
RS - Resistor  
SW - Switch

Failure Modes  
Loss of Output  
Erroneous Output  
Fails Open  
Shorts (End to End)  
Shorts to Ground  
Fails Closed  
Inadvertent Output (Fails to turn "OFF")

\* The EPD parts will be listed underneath the system using them in the nomenclature.





**Appendix 8:**  
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## **Glossary**

## General

**A/L** - Approach/Land  
**DTO** - Detailed Test Objective  
**EDO** - Extended Duration Orbiter  
**EPG** - Electric Power Generation  
**FC** - Fuel Cell (Subsystem Code FC)  
**FCS(s)** - Flight Critical String(s)  
**FMEA/CIL** - Failure Mode Effects Analysis/Critical Items List  
**HAC** - Heading Alignment Cylinder  
**LDO** - Long Duration Orbiter  
**LRU(s)** - Line Replaceable Units  
**MMOD** - Micro Meteoroids and Orbital Debris

**MPS** - Main Propulsion System  
**MTBF(s)** - Mean Time Between Failures  
**PAPI** - Precision Approach Pilot Indicator  
**RBD(A)** - Reliability Block Diagram (Analysis)  
**RPTA** - Rudder Pedal Transducer Assembly (Subsystem Code RPT)  
**RM** - Redundancy Management  
**SAIC** - Science Application International Cooperation  
**SBTC** - Speed Brake / Thrust Control (Subsystem Code SBT)  
**SRU(s)** - Shop Replaceable Units  
**TPS** - Thermal Protection System

## Subsystems

**C&T** - Communication and Tracking (System Code CNT)  
**D&C** - Displays and Controls (System Code DNC)  
**DPS** - Data Processing System  
**EPD&C** - Electrical Power Distribution & Control () parts, EEE parts and Displays and Controls (D&C) parts (System Code EPD)

**GN&C** - Guidance, Navigation and Control (System Code GNC)  
**MCH** - Mechanical Systems  
**PRSD** - Power Reactant Storage and Distribution (System Code PRS)  
**PYR** - Pyrotechnics

## Line Replaceable Units (LRUs)

**AA** - Orbiter Accelerometer Assembly (Subsystem Code OAA)  
**ADI** - Attitude Director Indicator  
**ADT** - Air Data Transducer Assembly (Subsystem Code ADTA)  
**ADTA** - Air Data Transducer Assembly  
**AMI** - Alpha Mach Indicator / Electronics (Subsystem Code AMI/E)  
**AMI/E** - Alpha Mach Indicator / Electronics  
**APU** - Auxiliary Power Unit  
**ASA** - Aero Surface Amplifier  
**AVV** - Altitude Vertical Velocity Indicator / Electronics (Subsystem Code AVVI/E)  
**AVVI** - Altitude Vertical Velocity Indicator / Electronics  
**BCV** - Brake/Skid Control Valve  
**BDF** - Body Flap PDU  
**BSC** - Brake/Skid Control Box  
**BSV** - Servo Valve - BDF  
**CRP** - Circulation Pump / HYD  
**CTL** - Controller / APU  
**DDU** - Display Driver Unit  
**DEC** - MSBLS Decoder  
**DYN** - Dynamite  
**ELV** - Elevon Actuator  
**FLC** - Fuel Cell  
**FTR** - Filter - HYD  
**GGV** - Gas Generator Valve Module / APU (Subsystem Code GGVM)  
**GGVM** - Gas Generator Valve Module (GGVM) / APU

**GPC** - General Purpose Computer  
**HFR** - Hydraulic Fluid Regulator / Brake  
**HSI** - Horizontal Situation Indicator  
**HUD** - Head Up Display  
**IMH** - Inertial Measurement Unit (IMU) Hains  
**IMK** - Inertial Measurement Unit (IMU) KT-70  
**IMU** - Inertial Measurement Unit - Generic  
**IVL** - ISO Valve / Brakes  
**MDM** - Multiplexer Demultiplexer - Generic  
**MFA** - Multiplexer Demultiplexer - Flight Aft  
**MFF** - Multiplexer Demultiplexer - Flight Forward  
**MLG** - (MSBLS) Microwave Scanning Beam Landing System - Ground Station  
**MLS** - (MSBLS) Microwave Scanning Beam Landing System - Navigation Set  
**MNP** - Main Pump - HYD  
**MOA** - Multiplexer Demultiplexer - Operational Instrumentation Aft  
**MOF** - Multiplexer Demultiplexer - Operational Instrumentation Forward  
**MPU** - Magnetic Pickup Unit / APU  
**MSBLS** - Microwave Scanning Beam Landing System - Navigation Set (Subsystem Code MLS)  
**MTR** - Motor - ADT  
**NWS** - Nose Wheel Steering  
**OAA** - Orbiter Accelerometer Assembly  
**PRB** - Probe - ADT  
**RAN** - Antenna - Receiver (Part of the RDR)  
**RDB** - Redundant WOW Detector Box - WOW

## Glossary

**RDR** - Radar Altimeter  
**RFA** - Radio Frequency Assembly  
**RGA** - Orbiter Rate Gyro Assembly  
**RHC** - Rotation Hand Controller  
**RPT** - Rudder Pedal Transducer Assembly (RPTA)  
**RSR** - Reservoir - HYD  
**RSV** - Servo Valve - RUD  
**RUD** - Rudder PDU  
**SBR** - Speed Brake PDU  
**SBT** - Speed Brake / Thrust Control (SBTC)  
**SCB** - Steering Control Box  
**SPA** - Steering Position Amplifier  
**SPI** - Surface Position Indicator  
**SPT** - Steering Position Transducer  
**SSV** - Servo Valve - SBR

**SVL** - Selector Valve / Brakes  
**TACAN** - Tactical Command Air Navigation (Subsystem Code TAC)  
**TAN** - Antenna - Transceiver (Part of the RDR)  
**TKS** - Tank Set  
**UPL** - Uplock on landing gear  
**VLV** - ISO Valve / HYD-1  
**WNG** - Weight on Nose Gear Sensor  
**WOW** - Weight on Wheels (Main Landing Gear) Sensor  
**WSB** - Water Spray Boiler - HYD  
**WSS** - Wheel Speed Sensor (Redundant for WOW)  
**XDR** - Transducer / Brakes

### EPD equipment within each Module

\* The following 2 digit names are preceded by the subsystem name and a 1 digit name identifying which system it falls within or type of equipment.

**CB** - Circuit Breaker (D&C)  
**DI** - Diode (EEE)  
**FS** - Fuse (EEE)  
**RP** - Remote Power Control (RPC) (EPD)  
**RS** - Resistor (EEE)  
**SW** - Switch (DNC)



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